

Electrical documentation

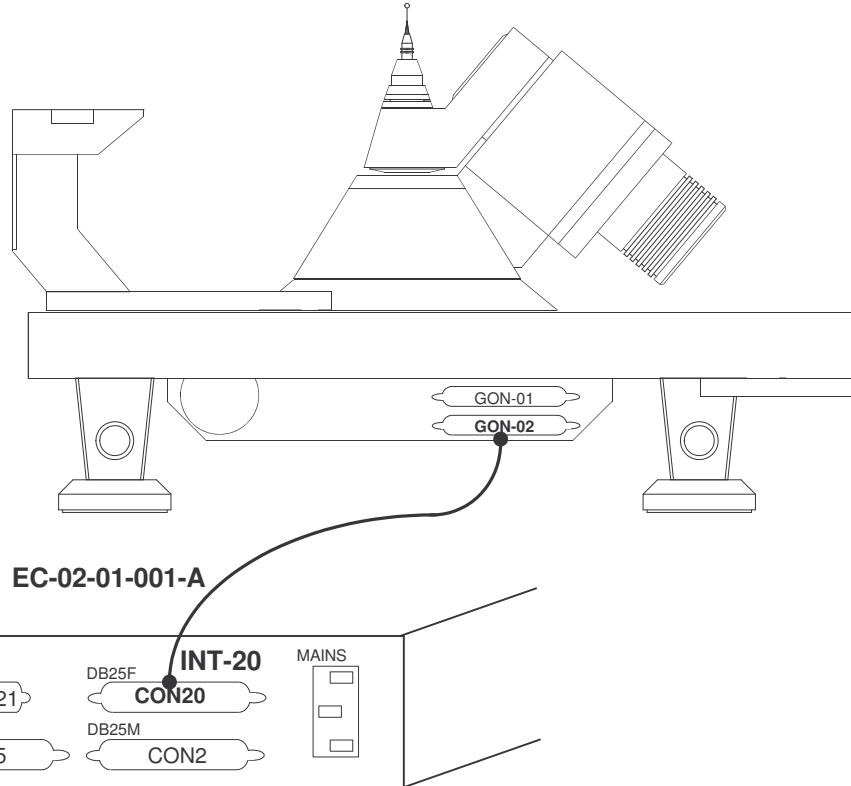
GEMINI

Single Crystal Diffractometer

CE

version 1.00
03.2005 Wrocław

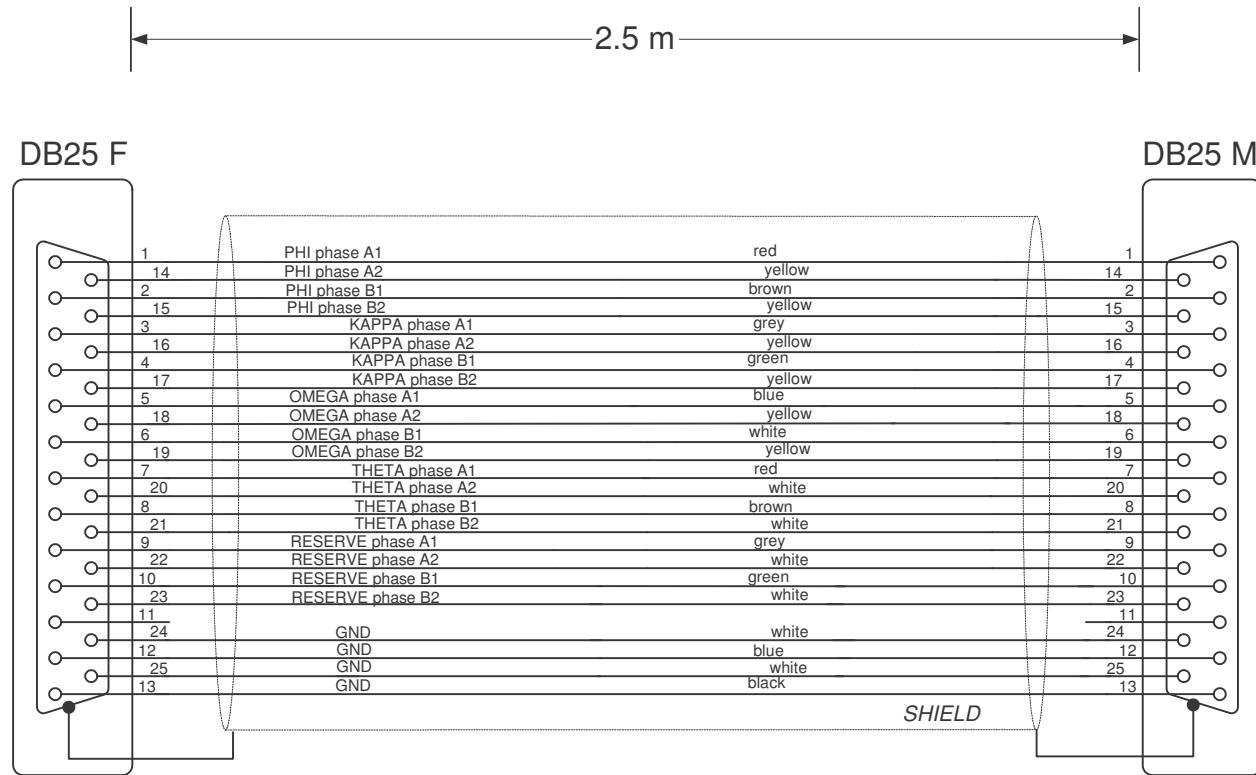




PNS code: EC-02-01-001-A	Length: 2.5m	Drg no.: EC-02-01-001-A
<i>Description: Stepping motor supply</i>		
Cable: 2 x 12 x 0.25 mm ² shielded	Connector 1: INT-20	Connector 2: GON-02
	PNS code: EA-06-00-005-A	PNS code: EA-06-00-006-A
PNS code: EA-05-00-014-A	Type: DB25 male	Type: DB25 female
Type: LiYCY2x12x0.25 shielded	Location: Interface – rear panel	Location: Goniometer

A. No.	B	C	D		TITLE: Xcalibur \ Gemini Stepping motors cable
Appr					
Date	12/2002	05/2004	04/2005	APPROVED BY:	FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation
					REV. D
				DATE: 06/07/2001	SHEET 1 of 2

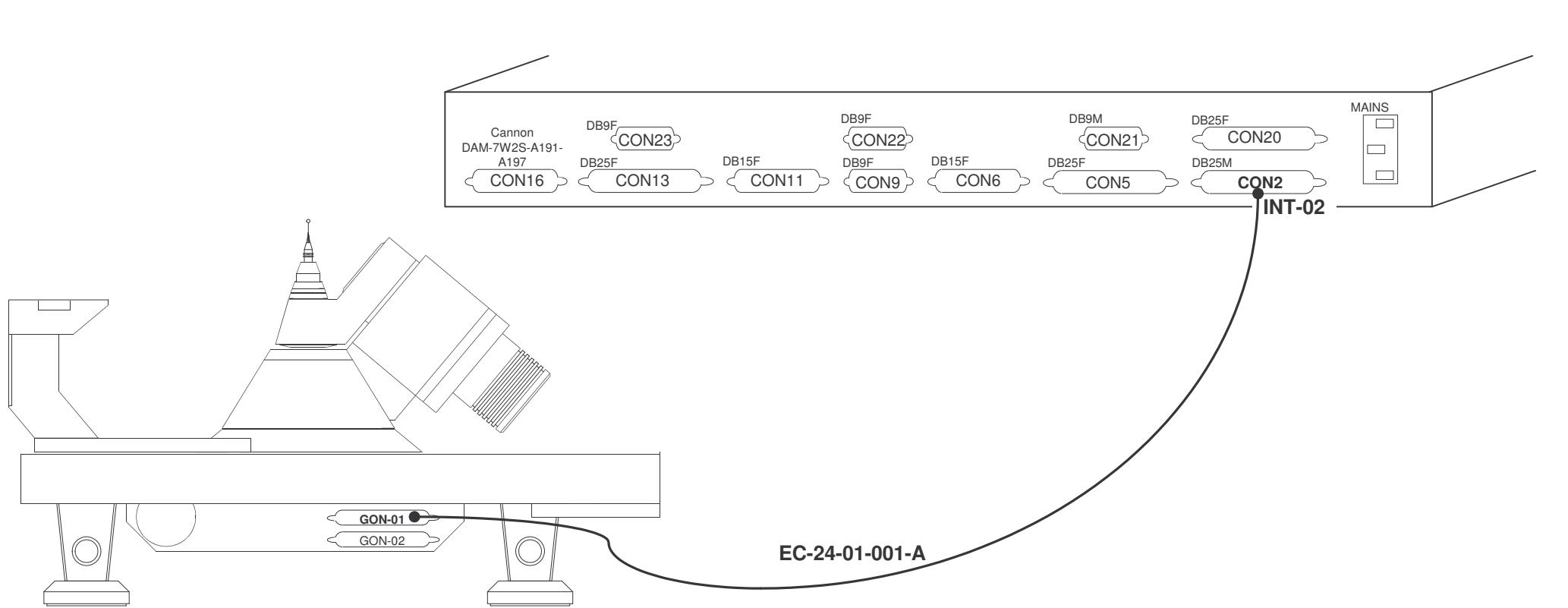
GON-02
Goniometer



INT-20
INTERFACE

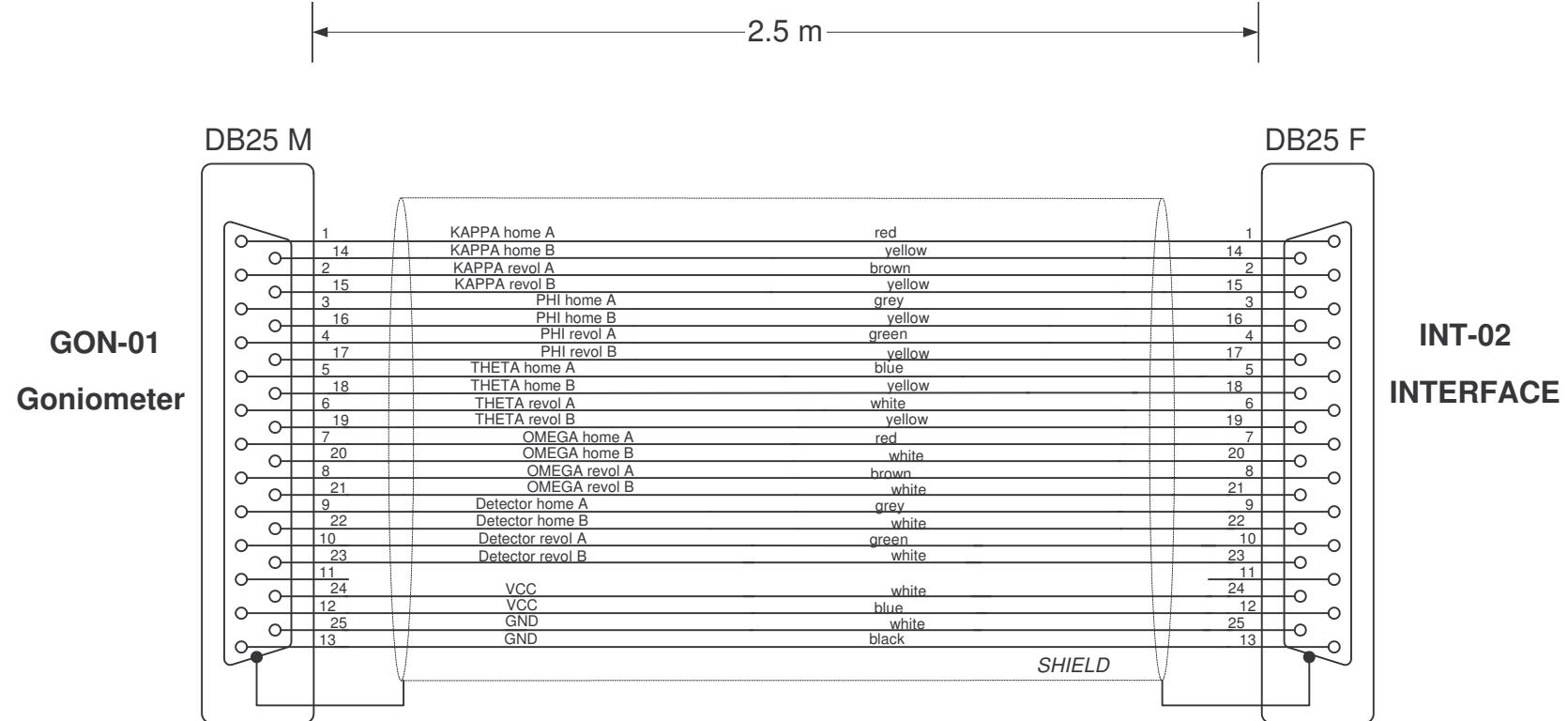
A. No.	C	D			Xcalibur \ Gemini	
Appr					Stepping motors cable	
Date	12/2002	04/2005			FILE: \\KUMA\\workgroups\\electronics\\Xcalibur\\Electrical documentation\\	REV. D

oxford diffraction
DRG NO.
EC-02-01-001-A
DRAWN BY: R. S.
APPROVED BY:
DATE: 04/07/2001
SHEET **2 of 2**

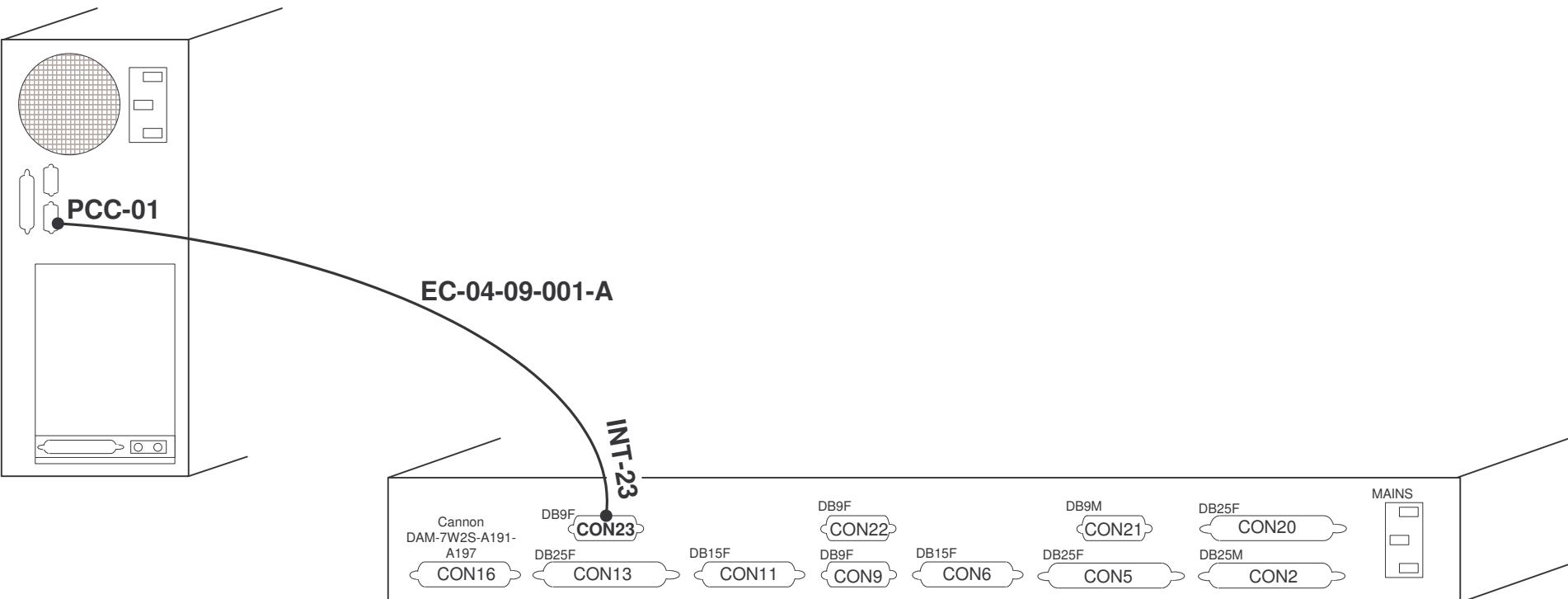


PNS code: EC-24-01-001-A	Length: 2.5m	Drg no.: EC-24-01-001-A
<i>Description: Encoders communication</i>		
Cable: 2 x 12 x 0.25 shielded	Connector 1: INT-02	Connector 2: GON-01
	PNS code: EA-06-00-006-A	PNS code: EA-06-00-005-A
PNS code: EA-05-00-014-A	Type: DB25 female	Type: DB25 male
Type: LiYCY2x12x0.25 shielded	Location: Interface – rear panel	Location: Goniometer

A. No.	B	C	D		TITLE: Xcalibur / Gemini Encoders cable DRG NO. EC-24-01-001-A DRAWN BY: R. S. APPROVED BY: _____	FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation	REV. D
Appr							
Date	Dec. 2002	05/2004	04/2005				



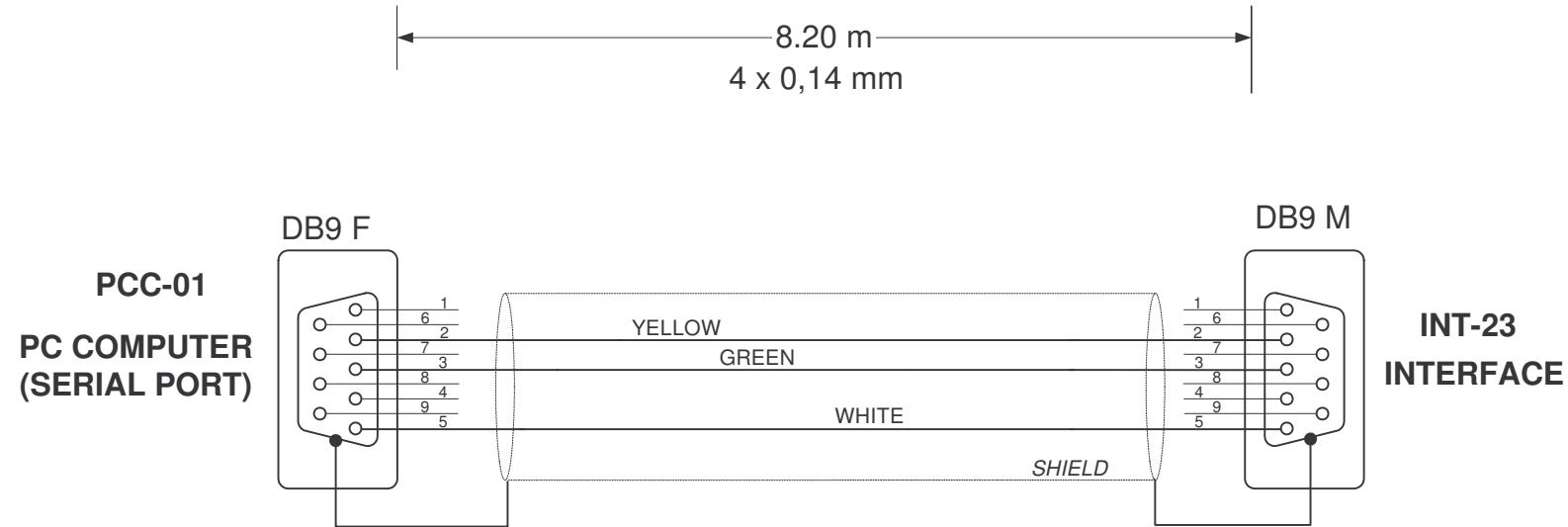
A. No.	C	D			TITLE: Xcalibur / Gemini Encoders cable	
Appr					FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	
Date	Dec. 2002	04/2005			REV. D	APPROVED BY: R. S. DATE: 04/07/2001 SHEET 2 of 2



PNS code: EC-04-09-001-A	Length: 8,20m	Drg no.: EC-04-09-001-A
<i>Description:</i> Interface communication		
Cable: 4 x 0.14mm ² shielded	Connector 1: INT-23	Connector 2: PCC-01
	PNS code: EA-06-00-001-A	PNS code: EA-06-00-002-A
PNS code: EA-05-00-002-A	Type: DB9 male	Type: DB9 female
Type: LiCY4 x 0.14 w ekranie	Location: Interface – rear panel	Location: PC (serial port)

A. No.	B	C		
Appr				
Date	Dec. 2002	04/2005		

 **oxford diffraction**
 DRG NO.
EC-04-09-001-A
 DRAWN BY: **R. S.**
 APPROVED BY:
 TITLE: **Xcalibur / Gemini**
Interface RS232 cable
 FILE: \\KUMA\\workgroups\\electronics\\Xcalibur\\Electrical documentation\\
 REV. **C**
 DATE: 04/07/2001 SHEET **1 of 2**



A. No.	B	C			TITLE: Xcalibur / Gemini	
Appr					Interface RS232 cable	
Date	Dec. 2002	04/2005			FILE: \\KUMA\\workgroups\\electronics\\Xcalibur\\Electrical documentation\\	REV. C
				APPROVED BY:	DATE: 04/07/2001	SHEET 2 of 2

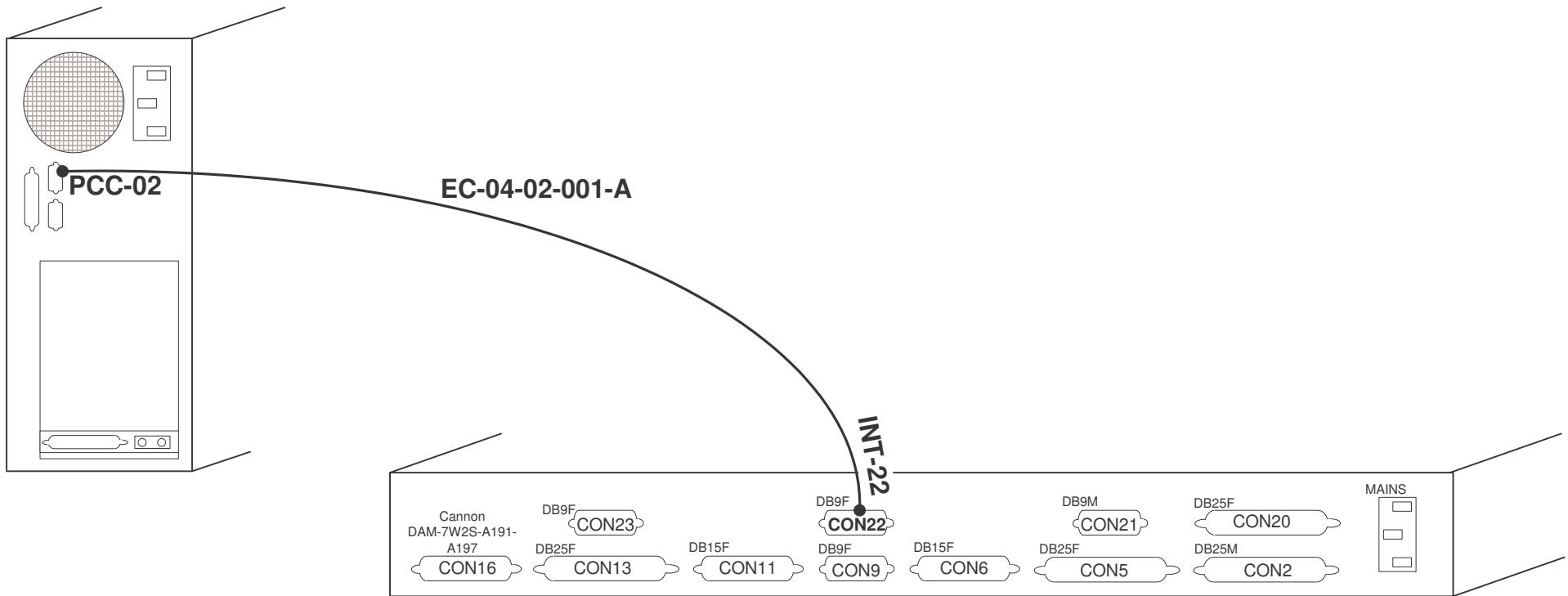


DRG NO.

EC-04-09-001-A

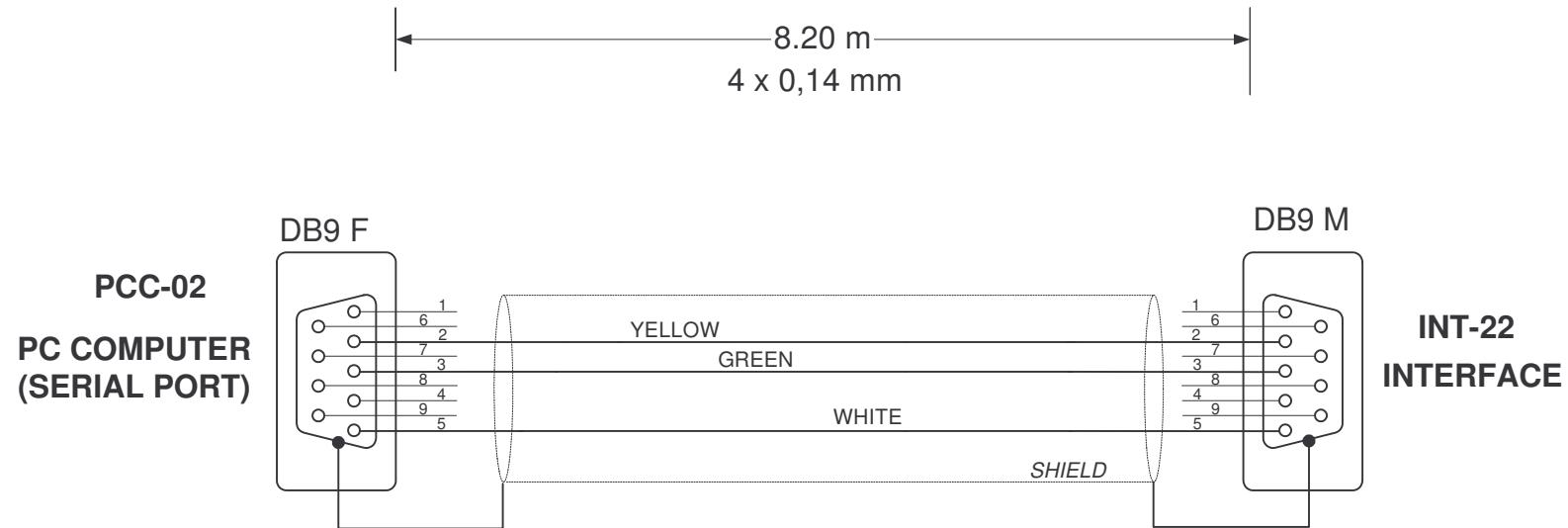
DRAWN BY: R. S.

APPROVED BY:



PNS code: EC-04-02-001-A	Length: 8.20m	Drg no.: EC-04-02-001-A
Description: CCD power supply communication		
Cable: 4 x 0.14mm² shielded	Connector 1: INT-22	Connector 2: PCC-02
	PNS code: EA-06-00-001-A	PNS code: EA-06-00-002-A
PNS code: EA-05-00-002-A	Type: DB9 male	Type: DB9 female
Type: LiYCY4 x 0.14 shielded	Location: Interface – rear panel	Location: PC (serial port)

A. No.	B	C			 oxford diffraction DRG NO. EC-04-02-001-A DRAWN BY: R. S. APPROVED BY: DATE: 06/07/2001 FILE: \KUMA\workgroups\electronics\Xcalibur\Electrical documentation SHEET 1 of 2
Appr					
Date	Dec. 2002	04/2005			



A. No.	B	C			TITLE: Xcalibur / Gemini CCD power supply to PC (RS232)	
Appr					FILE: \\KUMA\\workgroups\\electronics\\Xcalibur\\Electrical documentation\\	
Date	Dec. 2002	04/2005			DRAWN BY: R. S.	REV. C
					APPROVED BY:	DATE: 04/07/2001 SHEET 2 of 2



DRG NO.

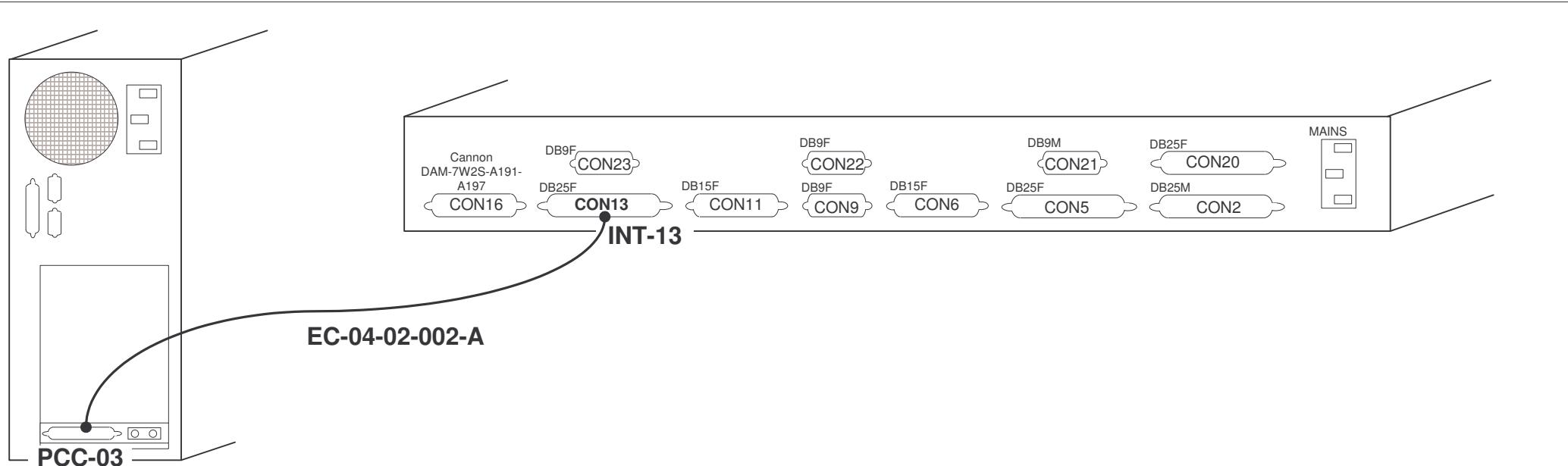
EC-04-02-001-A

DRAWN BY: R. S.

APPROVED BY:

DATE: 04/07/2001

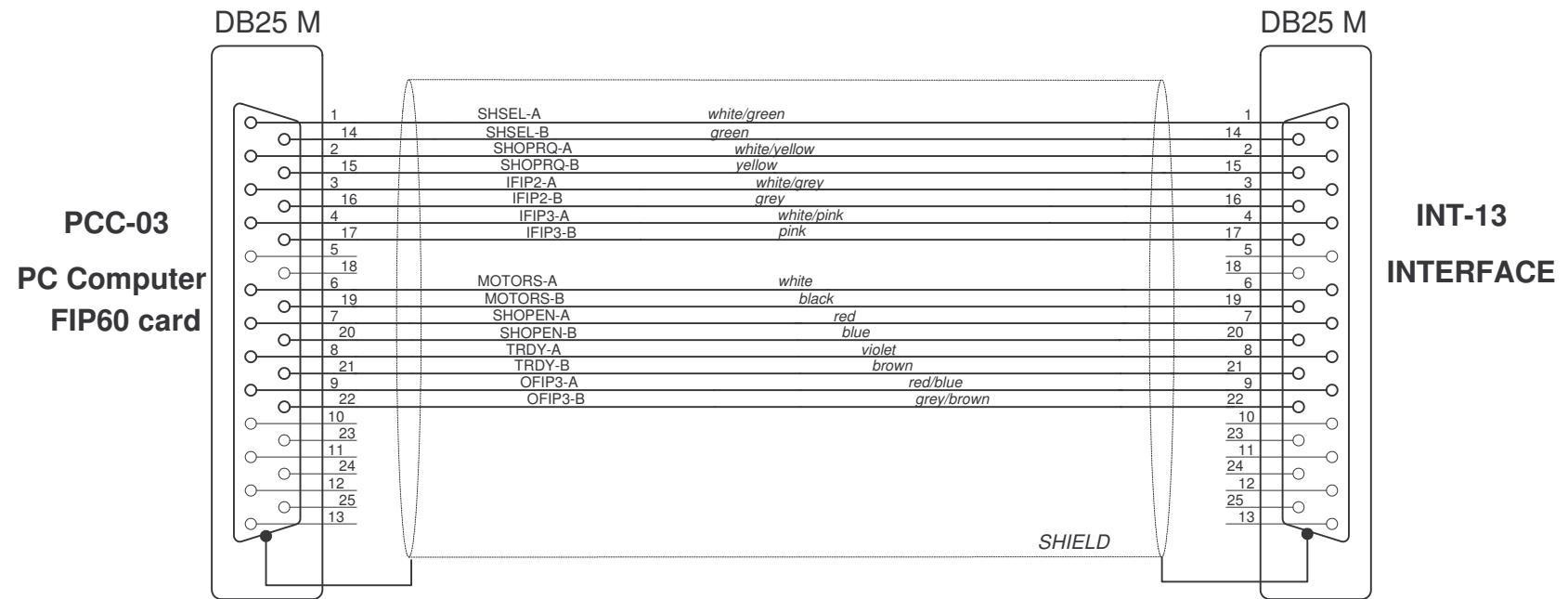
SHEET 2 of 2



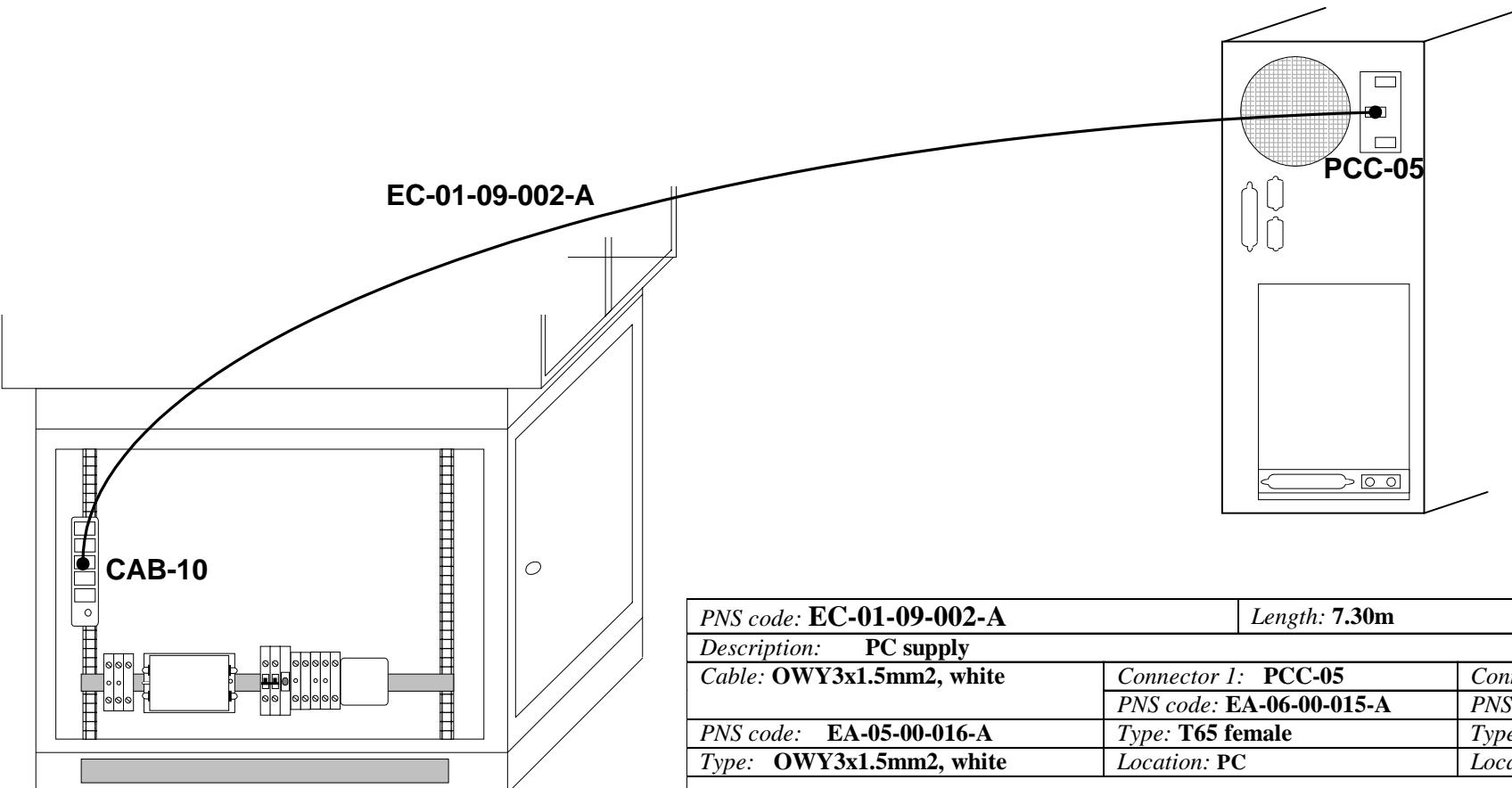
PNS code:	EC-04-02-002-A	Length:	8.20m	Drg no.:	EC-04-02-002-A	
<i>Description: FIP60 communication</i>						
Cable:	18 x 0.14mm² shielded	Connector 1:	INT-13	Connector 2:	PCC-03	
PNS code:	EA-06-00-005-A	PNS code:	EA-06-00-005-A	PNS code:	EA-06-00-005-A	
Type:	DB25 male	Type:	DB25 male	Type:	DB25 male	
Type:	LiYCY18 x 0.14 shielded	Location:	Interface – rear panel		Location:	PC (FIP60)

A. No.	B	C			EC-04-02-002-A DRG NO. DRAWN BY: R. S. APPROVED BY: DATE: 06/07/2001	TITLE: Xcalibur / Gemini FIP60 to Interface cable FILE: \\KUMA\\workgroups\\electronics\\Xcalibur\\Electrical documentation REV. C
Appr						
Date	Dec. 2002	04/2005				SHEET 1 of 2

8.20 m
18 x 0,14mm²



					 oxford diffraction DRG NO. EC-04-02-002-A DRAWN BY: R. S. APPROVED BY: DATE: 04/07/2001	TITLE: Xcalibur / Gemini FIP60 to Interface cable FILE: \\KUMA\\workgroups\\electronics\\Xcalibur\\Electrical documentation REV. C
A. No.	B	C				
Appr						
Date	Dec. 2002	04/2005			SHEET 2 of 2	



PNS code: EC-01-09-002-A	Length: 7.30m	Drg no.: EC-01-09-002-A
Description: PC supply		
Cable: OWY3x1.5mm², white	Connector 1: PCC-05	Connector 2: CAB-10
	PNS code: EA-06-00-015-A	PNS code: EA-06-00-014-A
PNS code: EA-05-00-016-A	Type: T65 female	Type: T65 male
Type: OWY3x1.5mm², white	Location: PC	Location: IEC plug inlet

A. No.	B			
Appr				
Date	Dec. 2002			

oxford diffraction

DRG NO.
EC-01-09-002-A

DRAWN BY: **R. S.**

APPROVED BY:

TITLE: **PC**

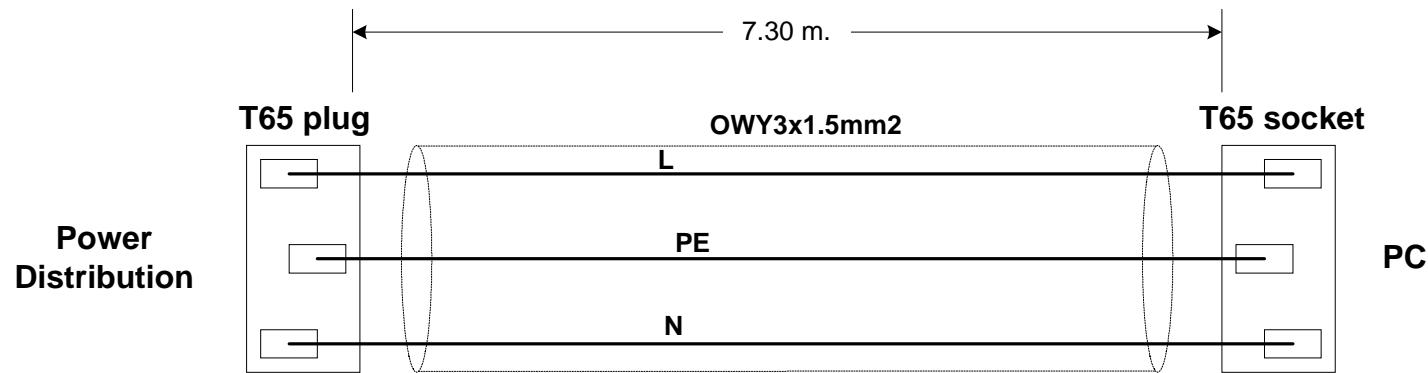
230VAC Supply cable

FILE: **\KUMA\workgroups\electronics\Xcalibur\Electrical documentation**

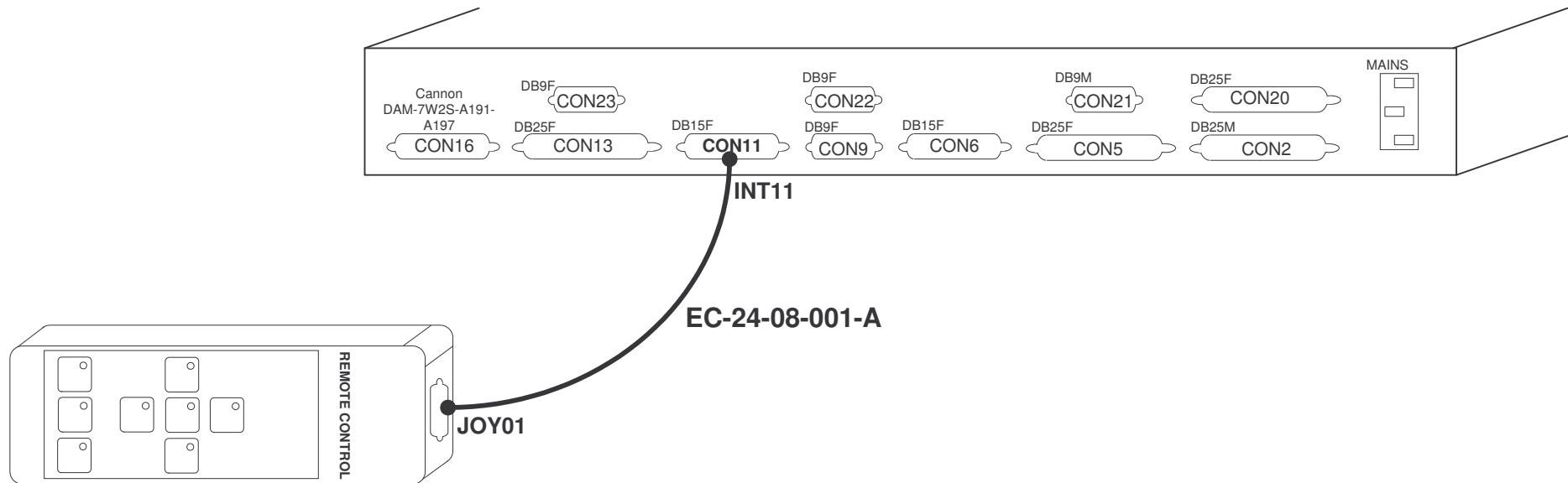
REV. **B**

DATE: **03/01/2002**

SHEET **1 of 2**

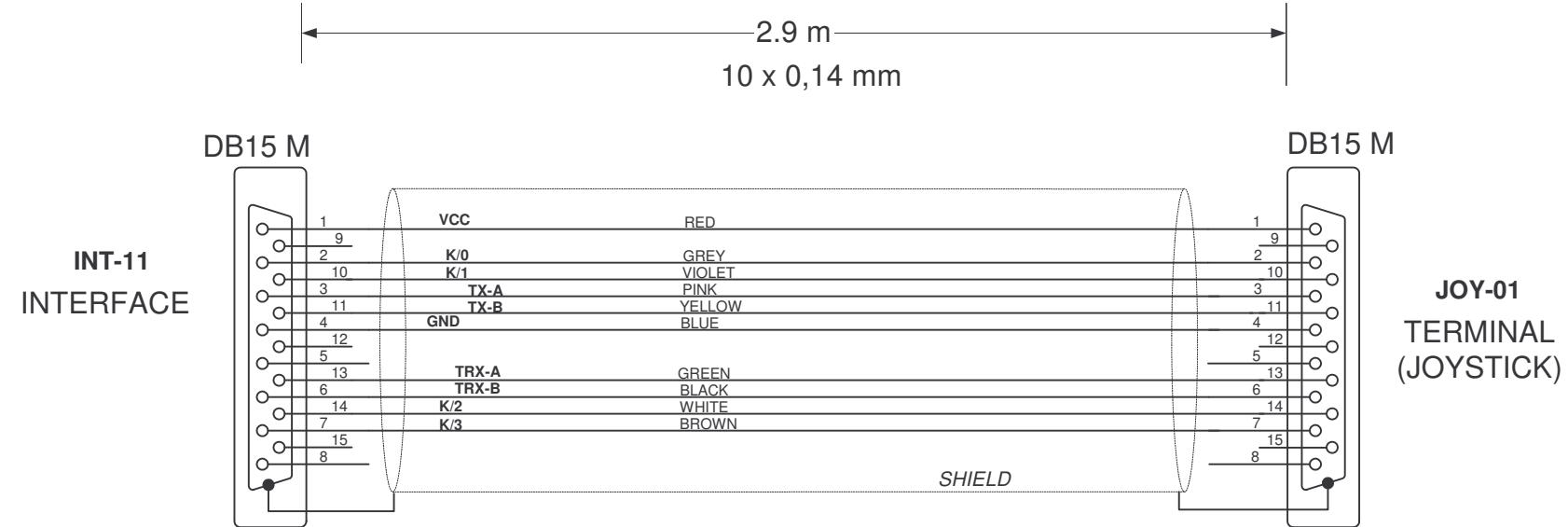


A. No.	B				 oxford diffraction	TITLE: PC
Appr					DRG NO. EC-01-09-002-A	230VAC Supply cable
Date	Dec. 2002				DRAWN BY: R. S.	FILE: \\KUMA\\workgroups\\electronics\\xcalibur\\Electrical documentation\\
					APPROVED BY:	REV. B DATE: 03/01/2001 SHEET 2 of 2



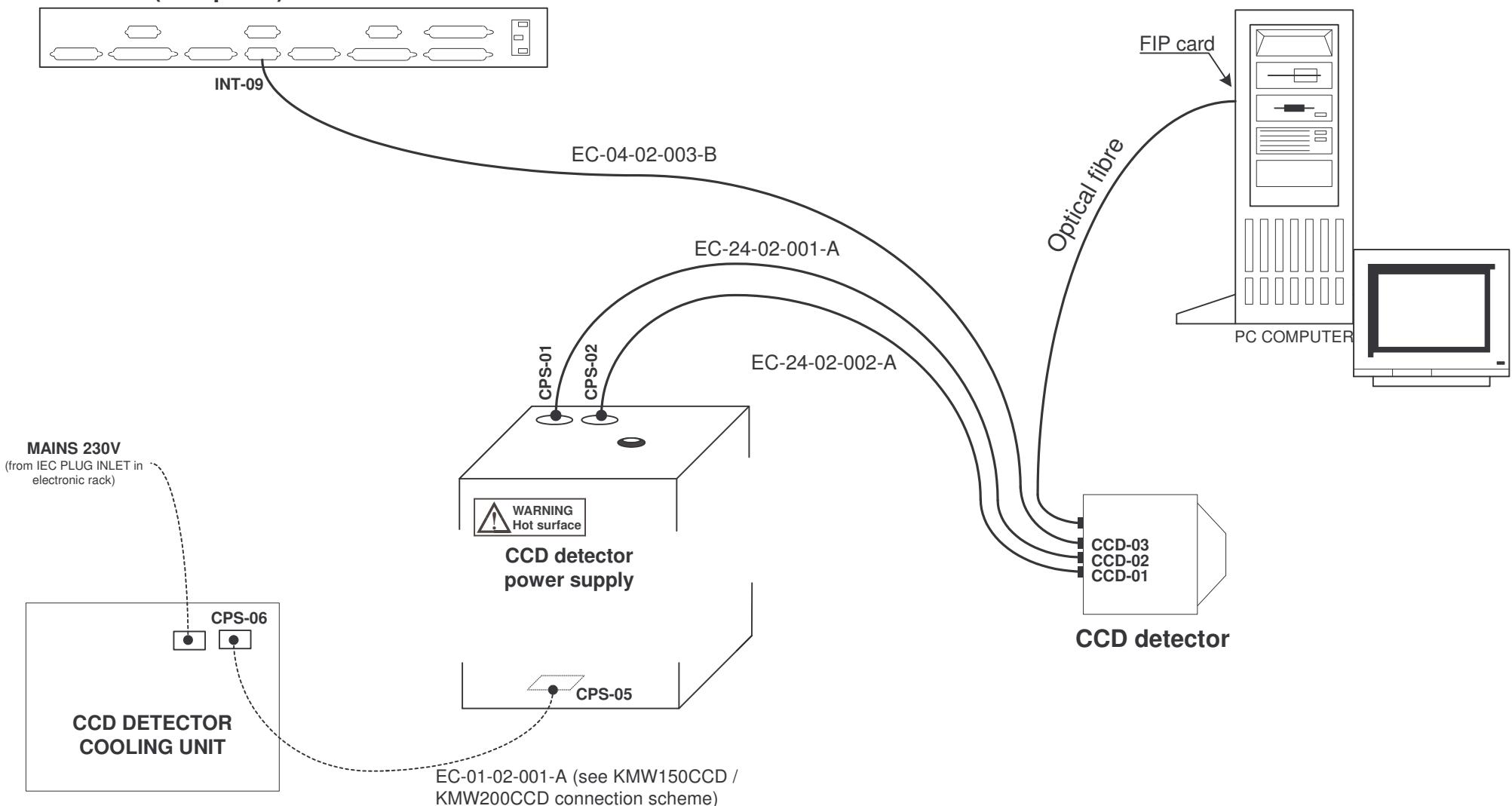
PNS code: EC-24-08-001-A	Length: 2.9m	Drg no.: EC-24-08-001-A
<i>Description:</i>		
Cable: 10 x 0.14 mm ² shielded	Connector 1: INT-11	Connector 2: JOY-01
	PNS code: EA-06-00-003-A	PNS code: EA-06-00-003-A
PNS code: EA-05-00-004-A	Type: DB15 male	Type: DB15 male
Type: LiYCY10x0.14 shielded	Location: Interface – rear panel	Location: Terminal

A. No.	B	C			TITLE: Xcalibur / Gemini Remote control cable
Appr					
Date	05/2004	04/2005			FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation
					REV. C
APPROVED BY:	R. S.			DATE: 09/07/2001	SHEET 1 of 2



A. No.	B	C			TITLE: Xcalibur / Gemini Remote control cable
Appr					
Date	05/2004	04/2005			FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\
			DRAWN BY:	R. S.	REV. C
			APPROVED BY:		DATE: 09/07/2001 SHEET 2 of 2

Interface (rear panel)



A. No.	B	C		
Appr				
Date	06/2003	04/2005		



DRG NO.

OD-1-04-01

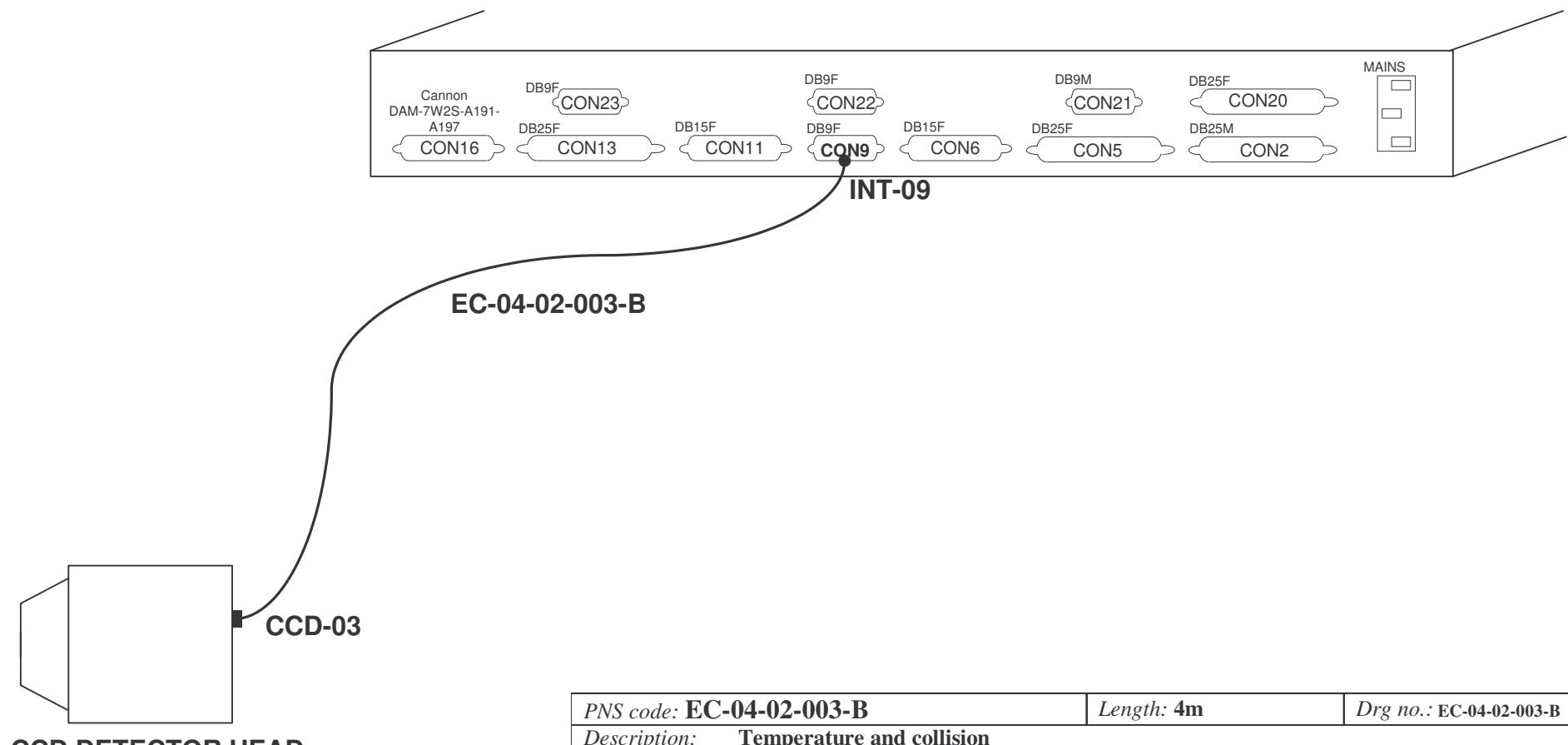
DRAWN BY: R. S.

APPROVED BY:

Xcalibur / Gemini	
CCD detector connections	
FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation	REV. C

DATE: 04/07/2001

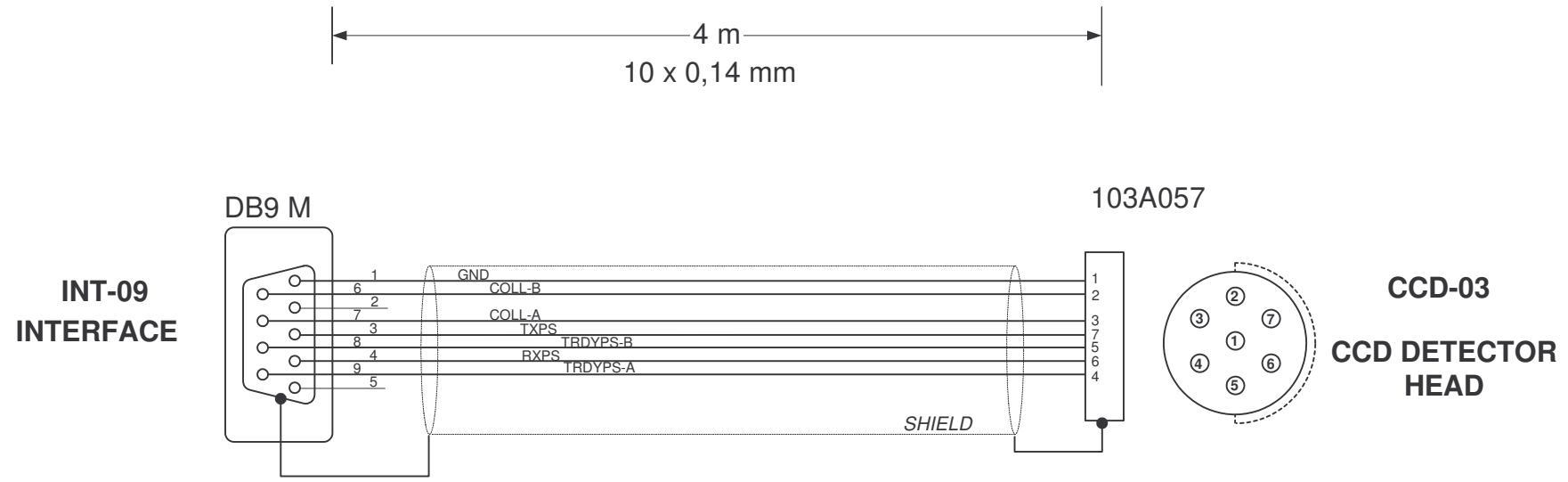
SHEET 1 of 1



PNS code: EC-04-02-003-B	Length: 4m	Drg no.: EC-04-02-003-B
<i>Description: Temperature and collision</i>		
Cable: 10 x 0.14mm² shielded	Connector 1: INT-09	Connector 2: CCD-03
	PNS code: EA-06-00-001-A	PNS code: EA-06-00-037-A
PNS code: EA-05-00-004-A	Type: DB9 male	Type: 103A057
Type: LiYCY10 x 0.14 shielded	Location: Interface – rear panel	Location: CCD detector head

A. No.	B			
Appr				
Date	04/2005			

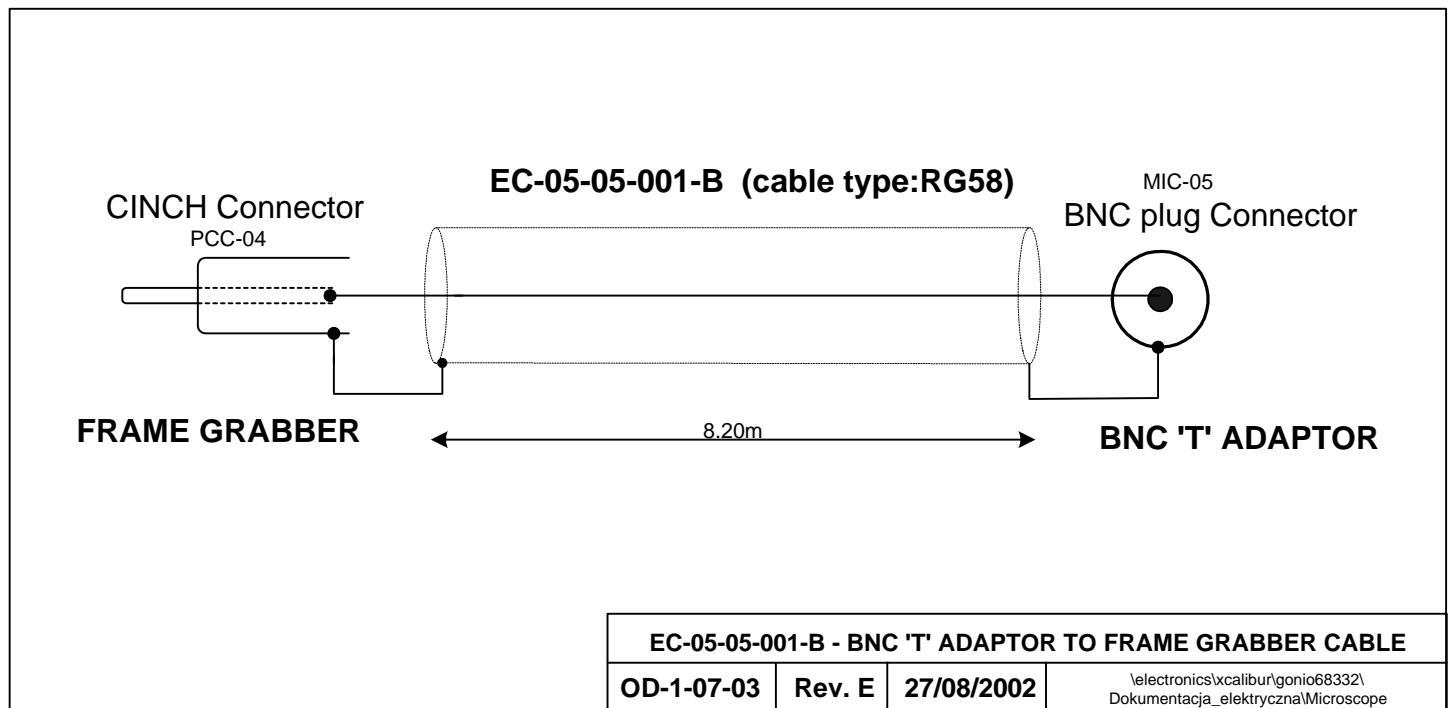
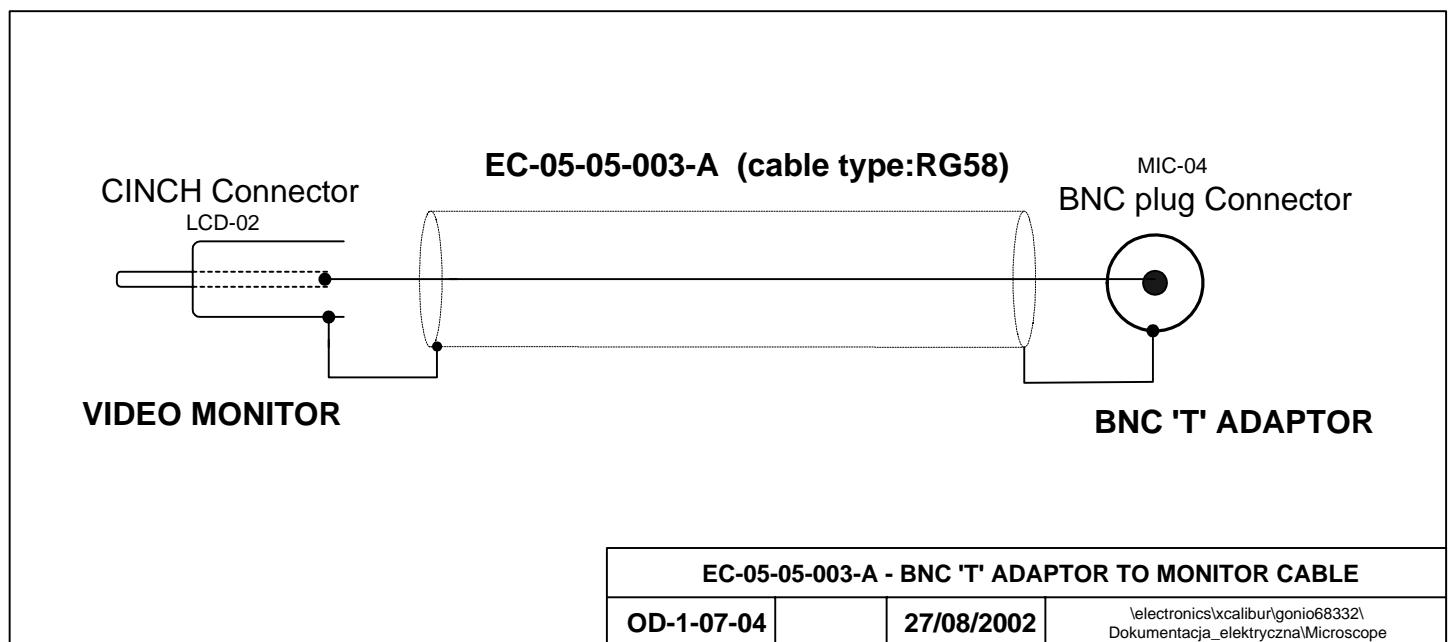
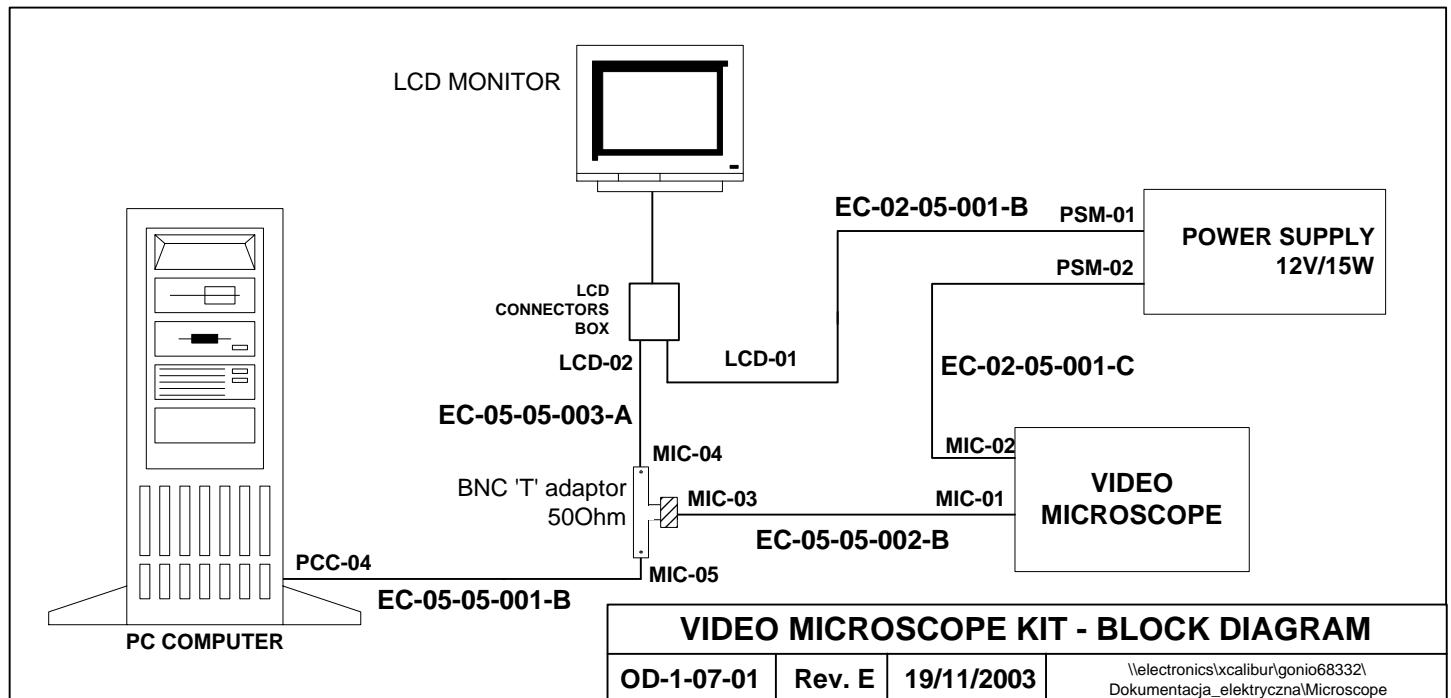
oxford diffraction
DRG NO.
EC-04-02-003-B
DRAWN BY: **R. S.**
APPROVED BY:
FILE: \\KUMA\\workgroups\\electronics\\Xcalibur\\Electrical documentation| REV. **B**
DATE: 06/2003 SHEET **1 of 2**

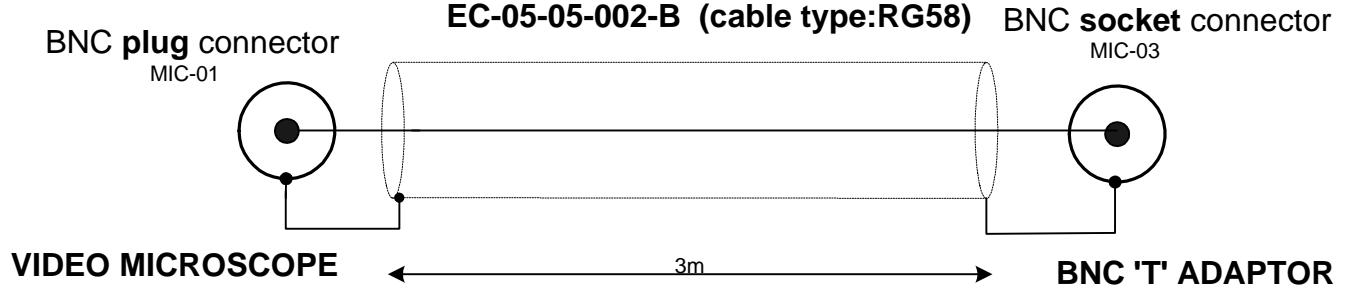


A. No.	B			
Appr				
Date	04/2005			

oxford diffraction
DRG NO.
EC-04-02-003-B
DRAWN BY: R. S.
APPROVED BY:
FILE: \\KUMA\\workgroups\\electronics\\Xcalibur\\Electrical documentation

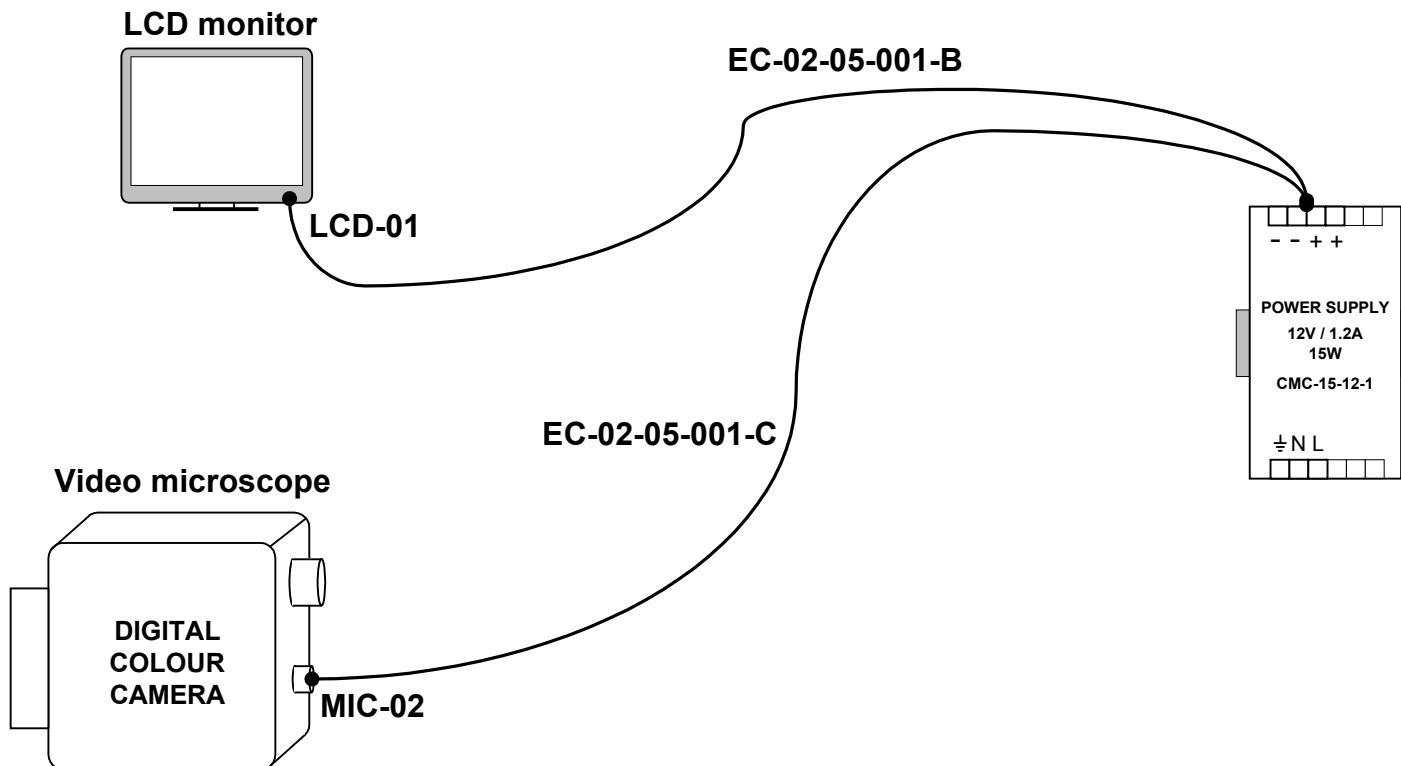
TITLE: **CCD detector - temperature and collision**
REV. **B**
DATE: 06/2003 SHEET **2 of 2**





EC-05-05-002-B - VIDEO MICROSCOPE TO BNC 'T' ADAPTOR CABLE

OD-1-07-02	Rev. D	27/08/2002	\electronics\xcalibur\gonio68332\Documentacja_elekt ryczna\Microscope
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PNS code: **EC-02-05-001-B, EC-02-05-001-C** | Length: 2x1.2m | Drg no.: EC-02-05-001-B

Description: LCD monitor and video microscope supply

Cable: 2 x 0.35mm² shielded

Connector 1: PSM-01, PSM-02

Connector 2: MIC-02

Connector 3: LCD-01

PNS code:

PNS code: EA-06-00-018-A

PNS code: EA-06-00-018-A

PNS code: EA-05-00-015-A

Type: screw connector

Type: T252

Type: T252

Type: LiYCY2x0.35mm²

Location: power supply

Location: Video microscope

Location: LCD monitor



DRG NO.

EC-02-05-001-B

DRAWN BY: R. S.

APPROVED BY:

TITLE:

**LCD monior and video
microscope power supply cable**

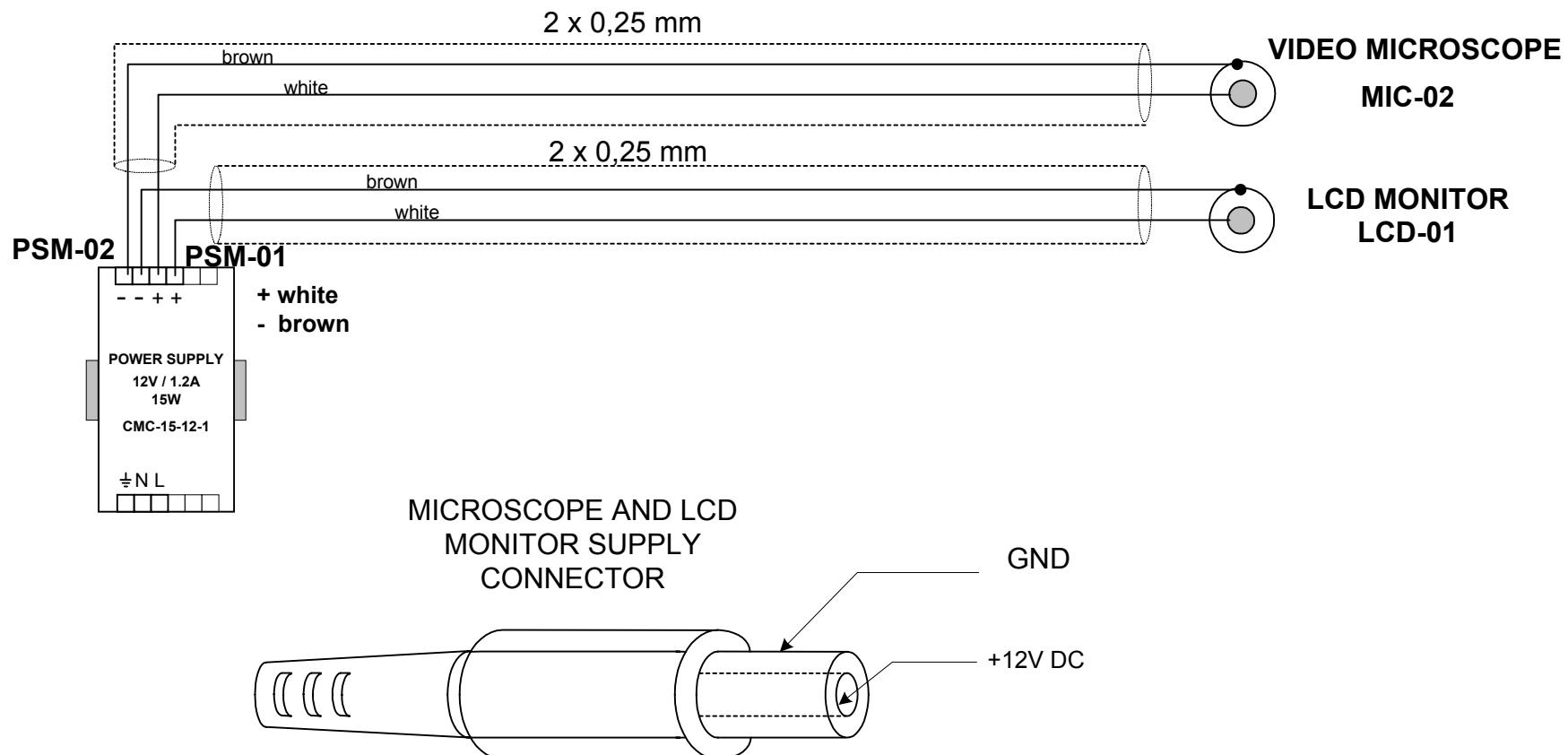
FILE: \\KUMA\\workgroups\\electronics\\
gonio68332\\cables

REV. A

DATE: 06/2003

SHEET 1 of 2

A. No.				
Appr				
Date				



DRG NO.

EC-02-05-001-B

DRAWN BY: R. S.

APPROVED BY:

TITLE:

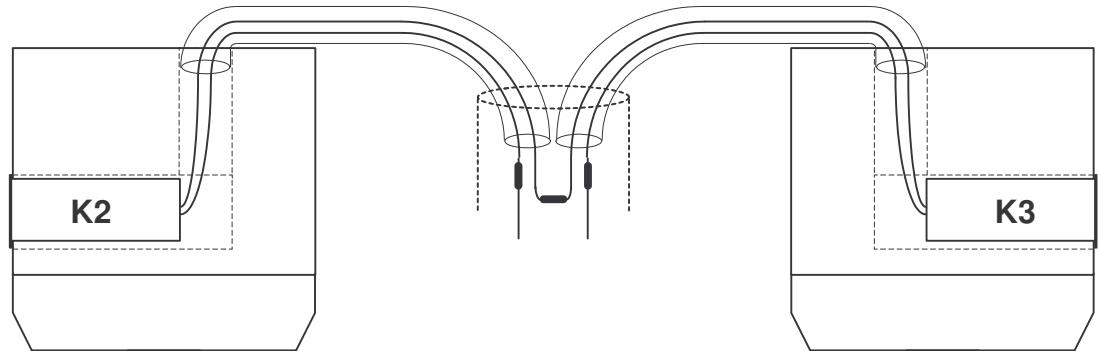
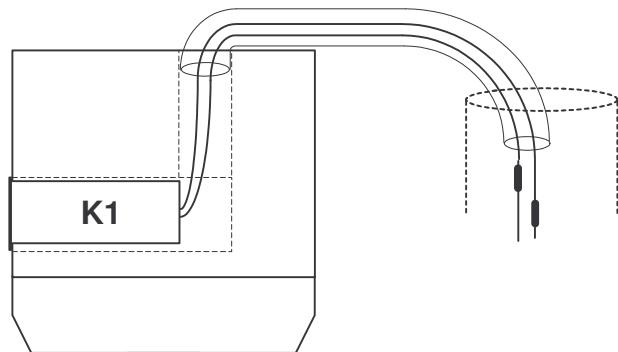
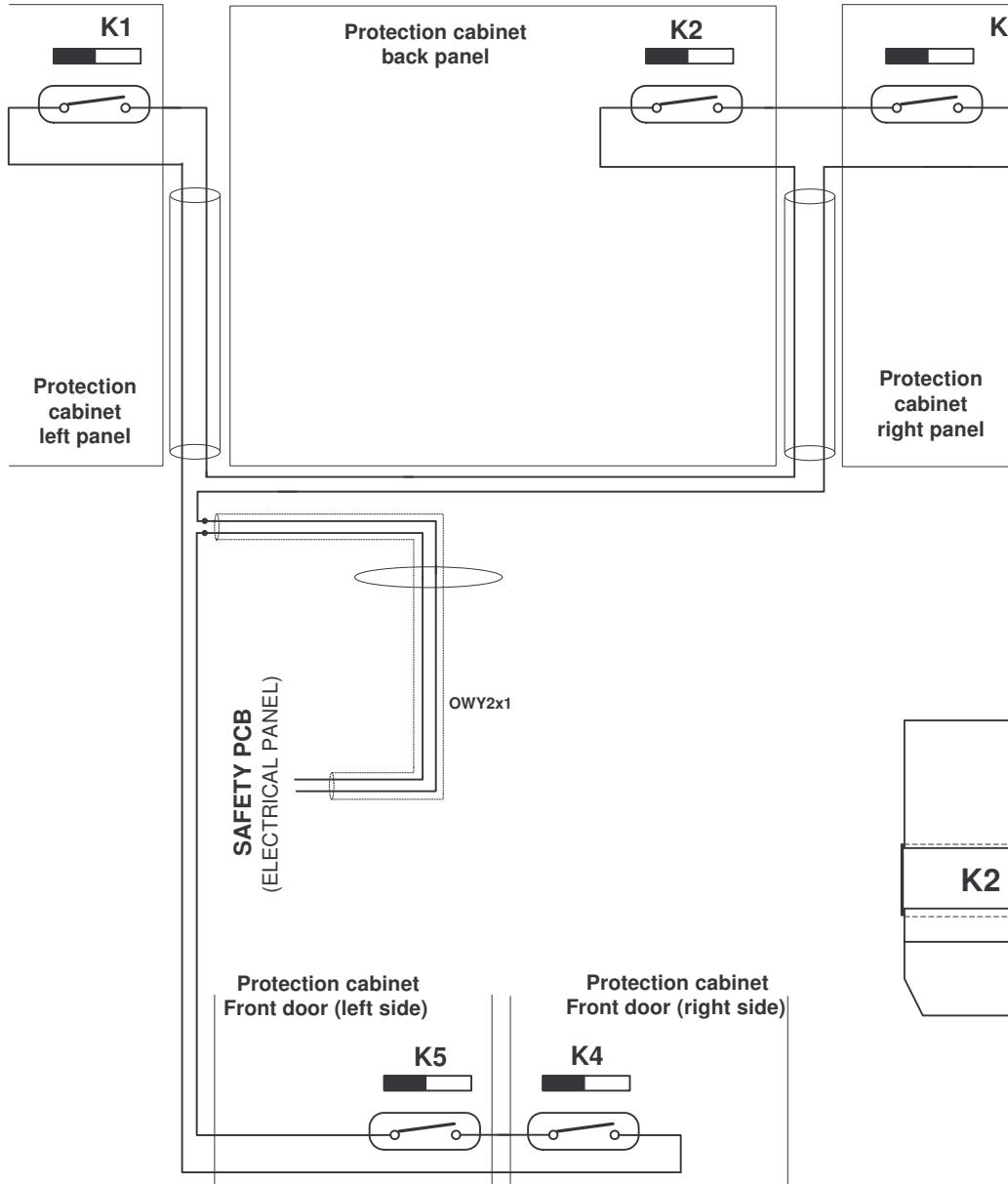
**LCD monior and video
microscope power supply cable**

FILE: \\KUMA\\workgroups\\electronics\\
gonio68332\\cables

REV.

A. No.				
Appr				
Date				

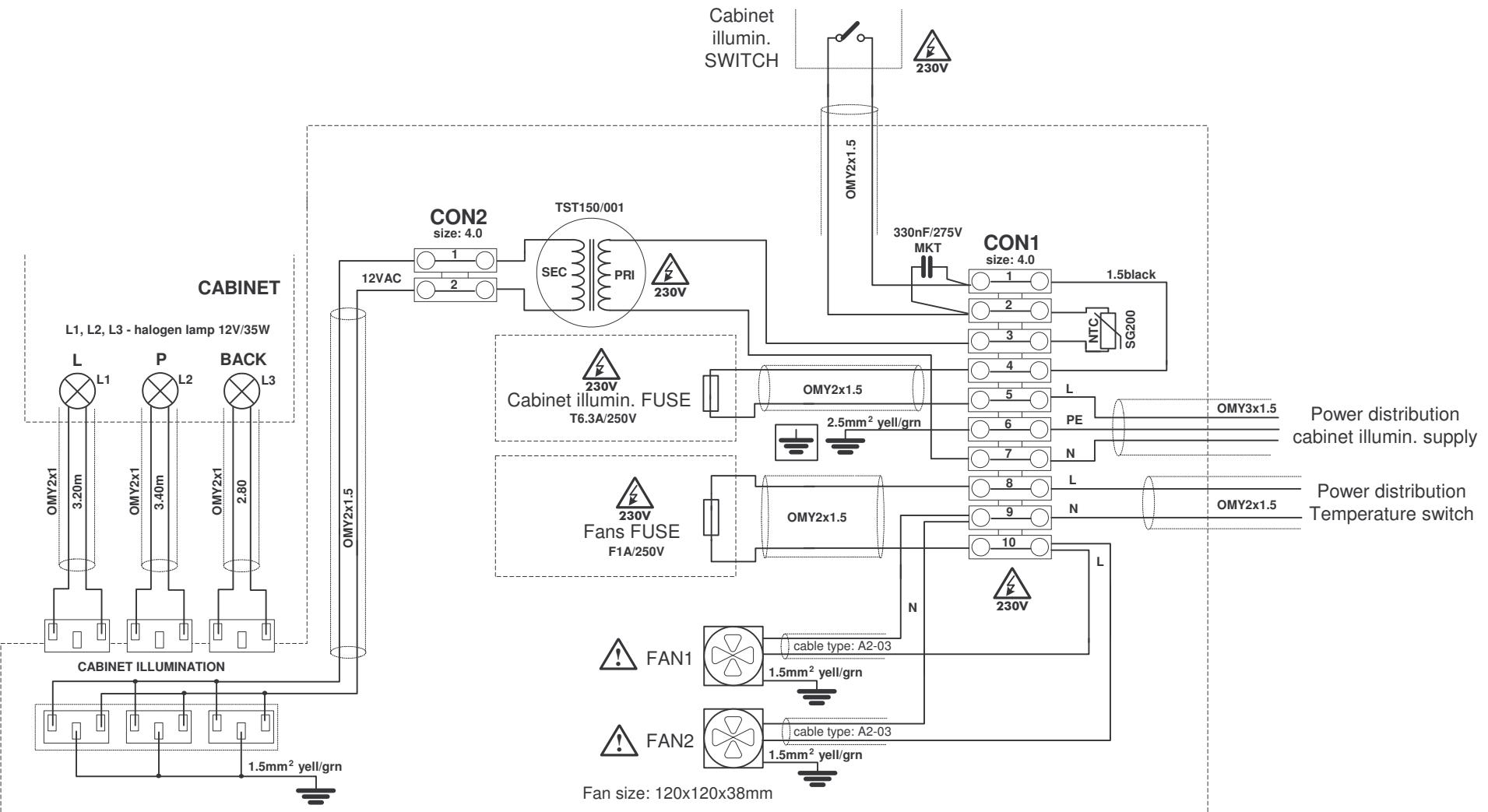
DATE: 06/2003 SHEET 2 of 2



A. No.	B	C		
Appr				
Date	09/2003	04/2005		

 **oxford diffraction**
DRG NO. **EC-24-11-001-B**
DRAWN BY: R. S.
APPROVED BY:

TITLE: **Gemini Protection cabinet sensors**
FILE: \\KUMA\\workgroups\\electronics\\Xcalibur\\Electrical documentation | REV. **C**
DATE: **09.2003** SHEET **1 of 1**



DRG NO.

EF-00-01-001-A

DRAWN BY: **R. S.**

APPROVED BY:

TITLE: XCALIBUR / GEMINI
FAN PANEL - electrical connection

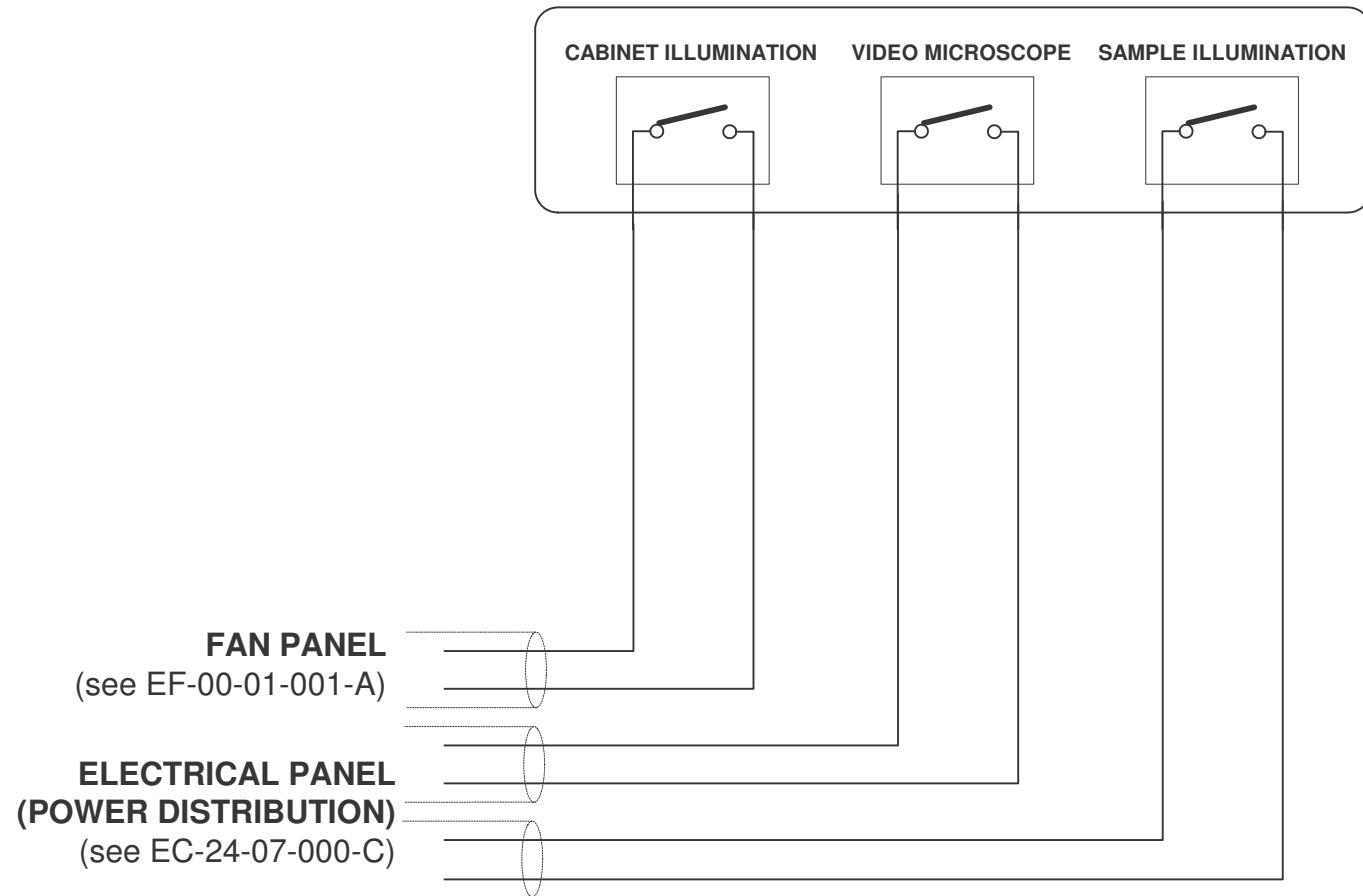
FILE: \\KUMA\workgroups\electronics\xcalibur\electrical documentation

REV. B

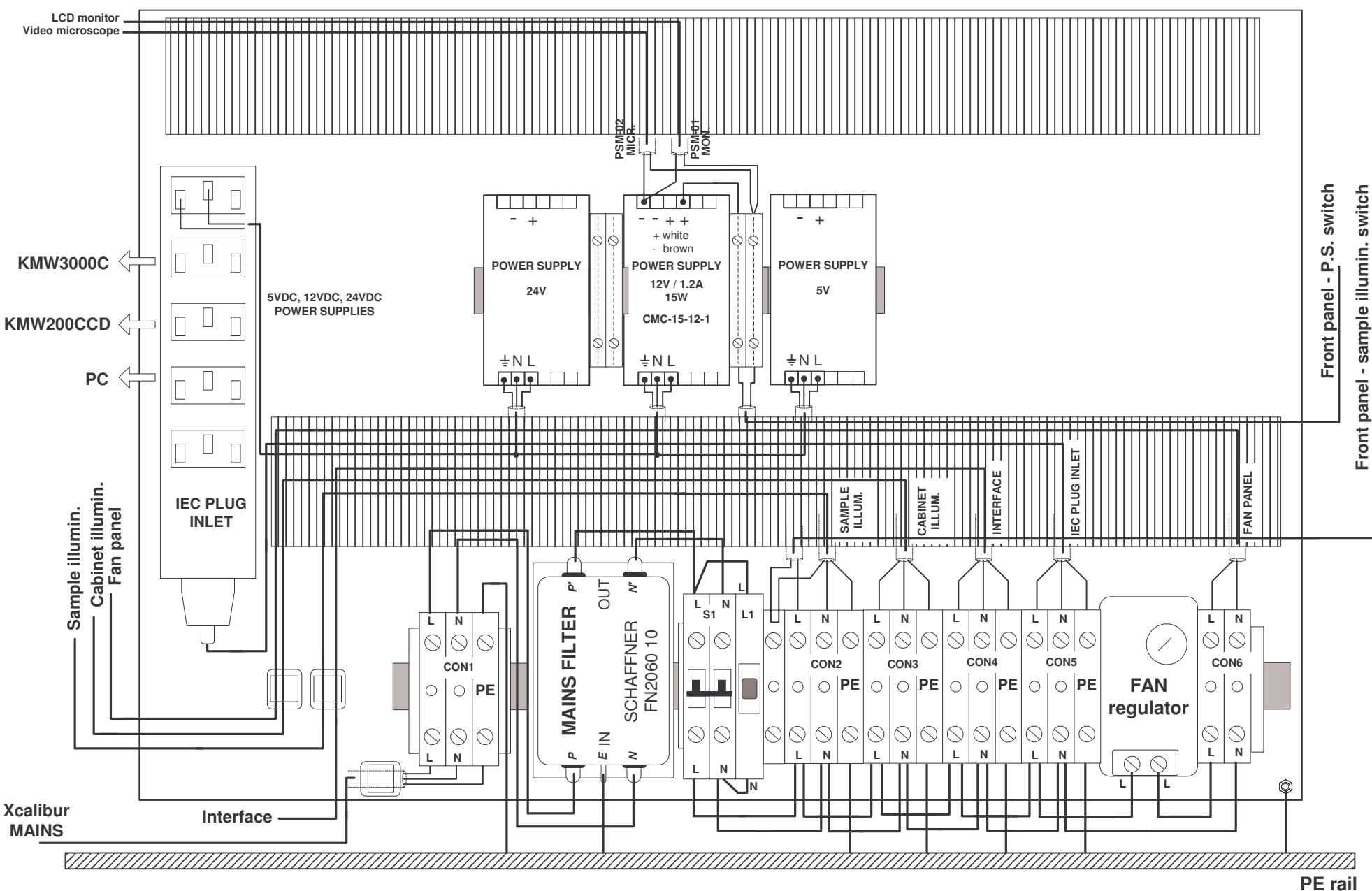
A. No.	B			
Appr				
Date	04/2005			

DATE: 08/2003

SHEET **1 of 1**



A. No.	B				oxford diffraction DRG NO. EC-24-07-010-A DRAWN BY: R. S. APPROVED BY:	TITLE: Gemini Front panel	
Appr						FILE: \\\KUMA\\workgroups\\electronics\\Xcalibur\\Electrical documentation\\	REV. B
Date	04/2005					DATE: 07.2003	SHEET 1 of 1



A. No.

B

D

E

Appr

Date

06/2003

09/2003

04/2005

oxford diffractionDRG NO. **EC-24-07-000-A**

DRAWN BY: R. S.

APPROVED BY:

TITLE:

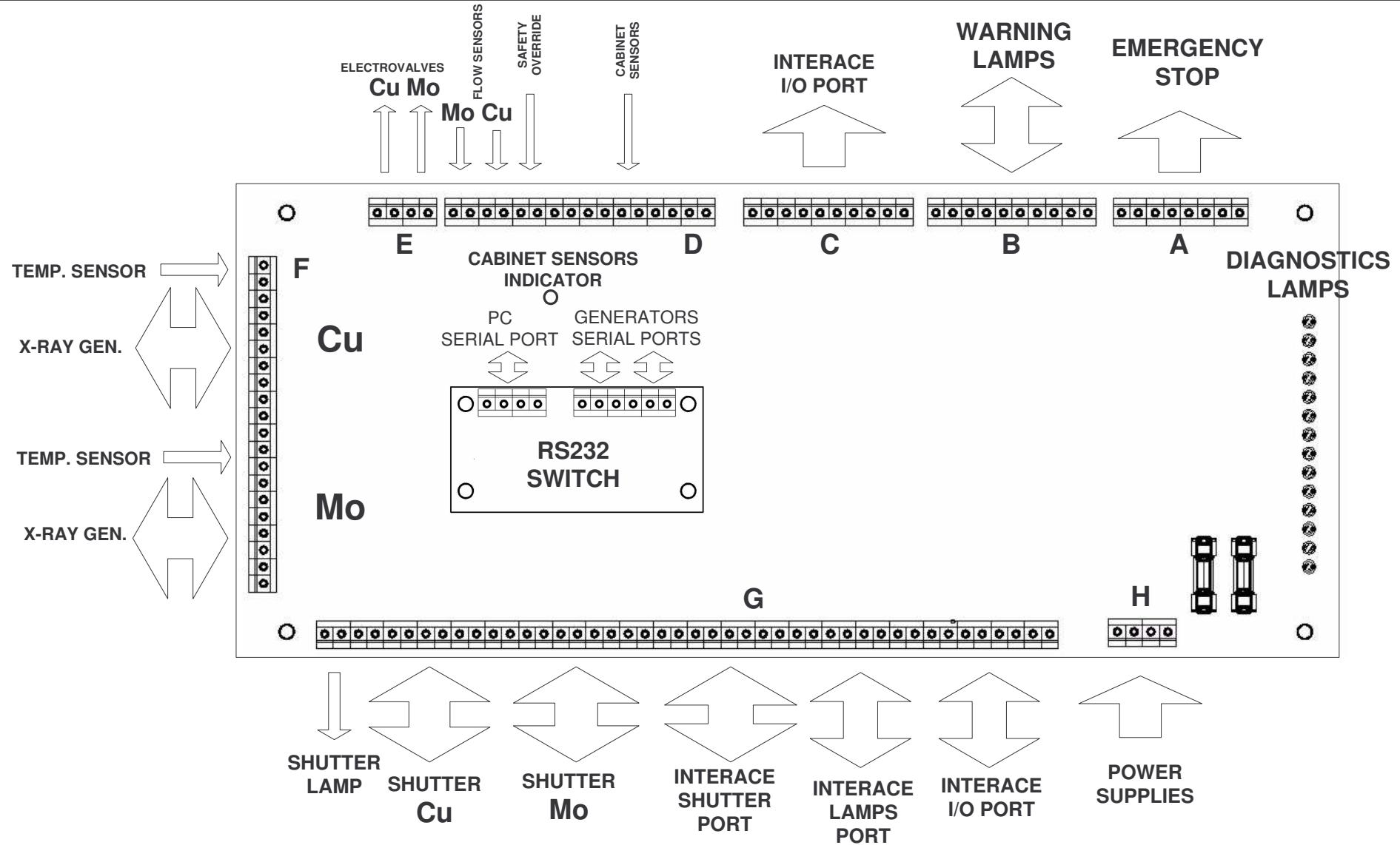
**GEMINI
Electrical panel**

FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation

REV. **E**

DATE: 04.2003

SHEET **1 of 1**



oxford diffraction

DRG NO.

EG-01-00-001-A

DRAWN BY: R. S.

APPROVED BY:

TITLE:

GEMINI PCB connections

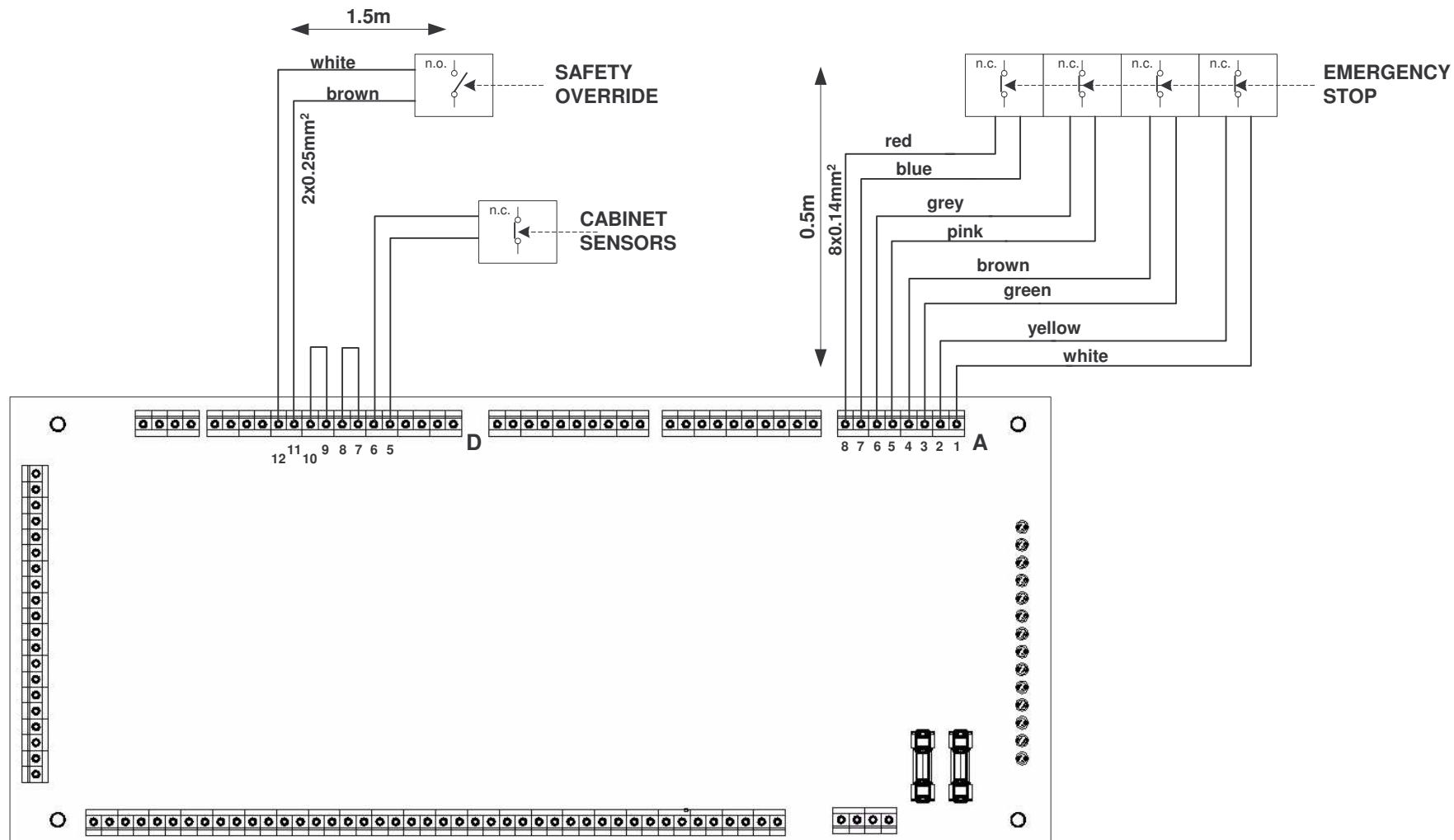
FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation

REV. A

A. No.				
Appr				
Date				

DATE: 11.2004

SHEET 1 of 1



oxford diffraction

DRG NO.

EG-01-00-002-A

DRAWN BY: R. S.

APPROVED BY:

TITLE:

GEMINI PCB connections

FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\

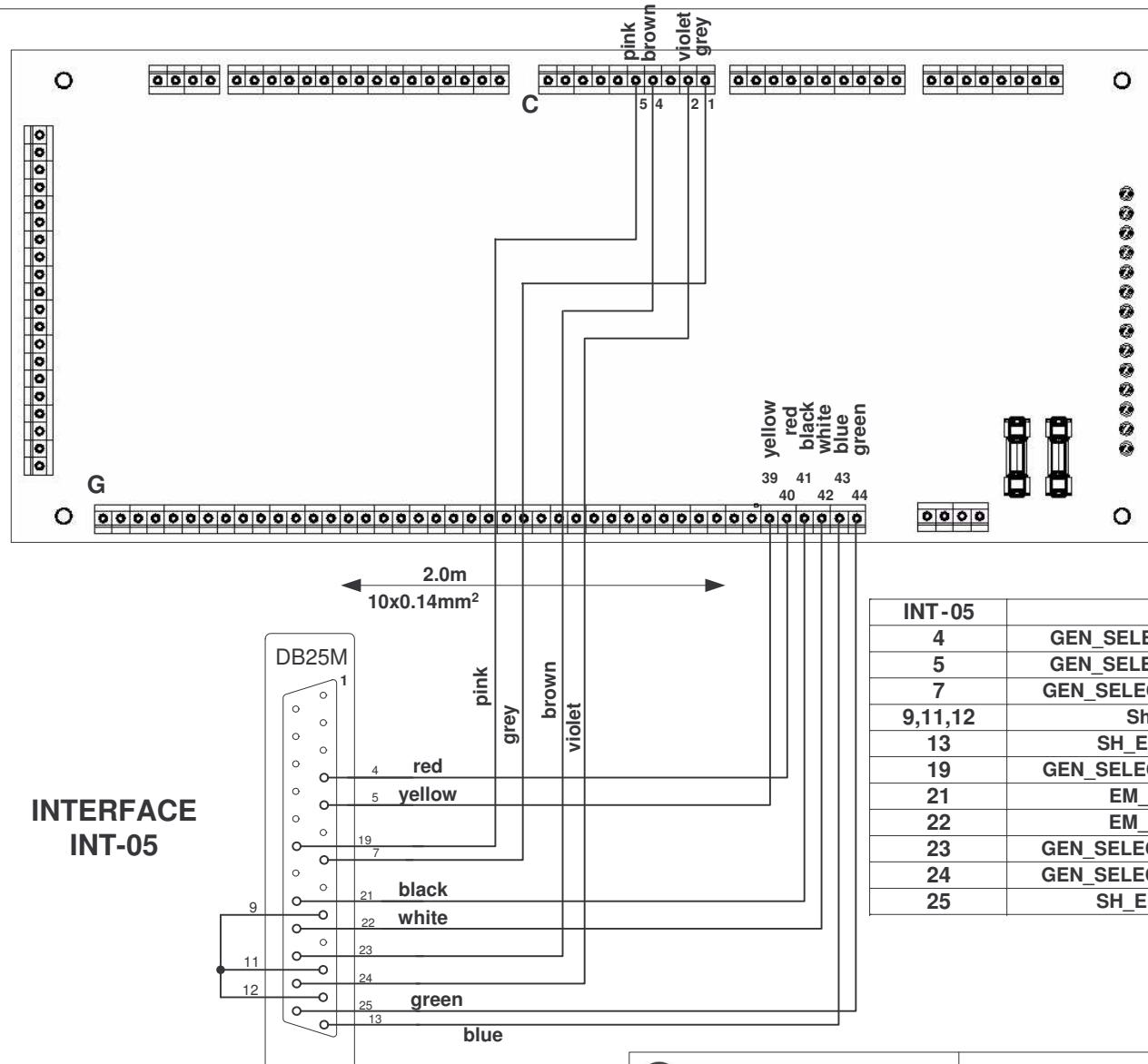
REV.

B

DATE: 11.2004

SHEET **1 of 1**

A. No.				
Appr				
Date				



A. No.			
Appr			
Date			

oxford diffraction

DRG NO.

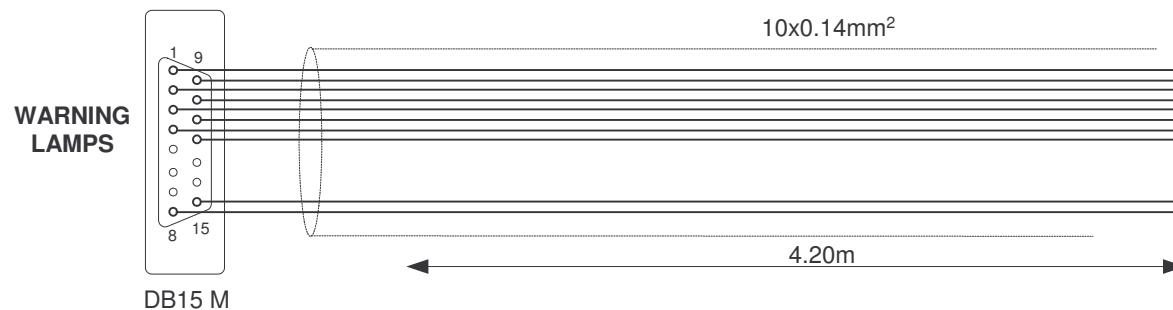
EG-01-00-003-A

DRAWN BY: R. S.

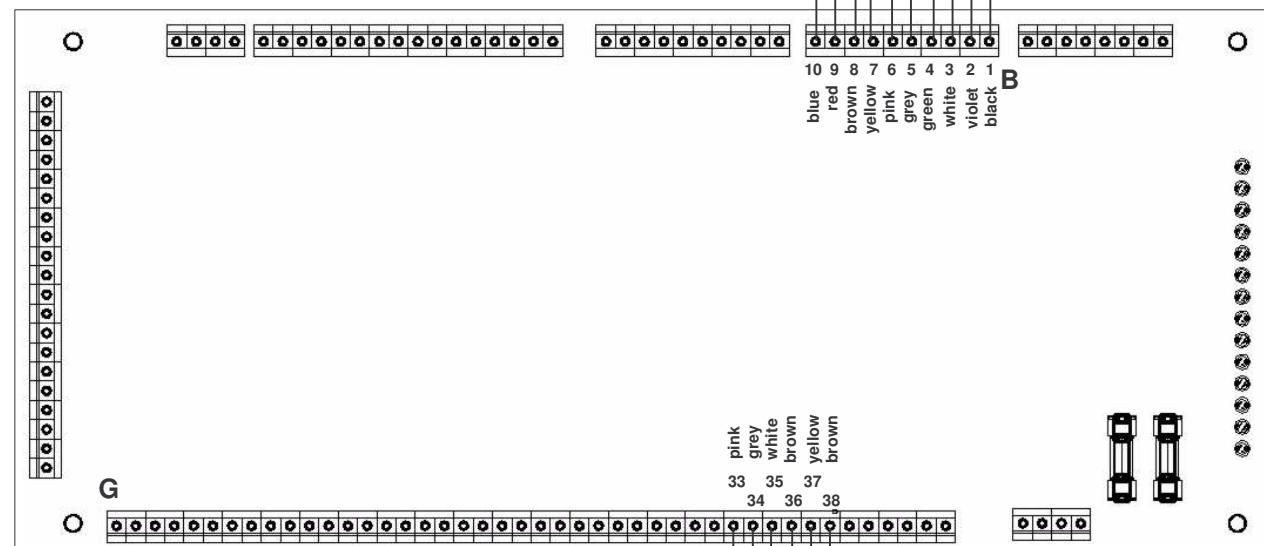
APPROVED BY:

TITLE: GEMINI PCB connections	
FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	REV. A
DATE: 11.2004	SHEET 1 of 1

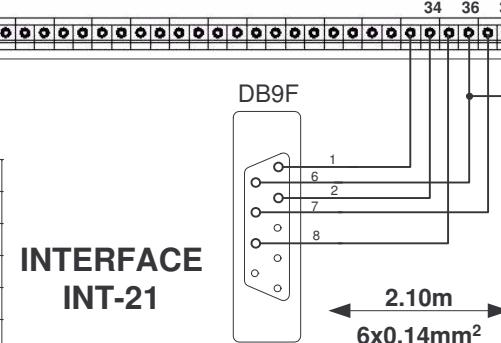
1 - white
 9 - green
 2 - grey
 10 - pink
 3 - brown
 11 - yellow
 4 - blue
 12 - red
 8 - violet
 15 - black



PCB		WARNING LAMPS (DB15)
B-1	SAFETY-A	15
B-2	SAFETY-B	8
B-3	SH.CLOSED LAMP -	1
B-4	SH.CLOSED LAMP+	9
B-5	SH.OPEN LAMP -	2
B-6	SH.OPEN LAMP+	10
B-7	Cu LAMP +	11
B-8	Cu LAMP-	3
B-9	Mo LAMP+	12
B-10	Mo LAMP -	4



INT-21		PCB
1	SAFETY-A	G-33
2	SAFETY-B	G-34
6	+VCC	G-36, G-38
7	-REDLAMP	G-37
8	-GRNLAMP	G-35



A. No.				
Appr				
Date				

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DRG NO.

EG-01-00-004-A

DRAWN BY: R. S.

APPROVED BY:

TITLE:

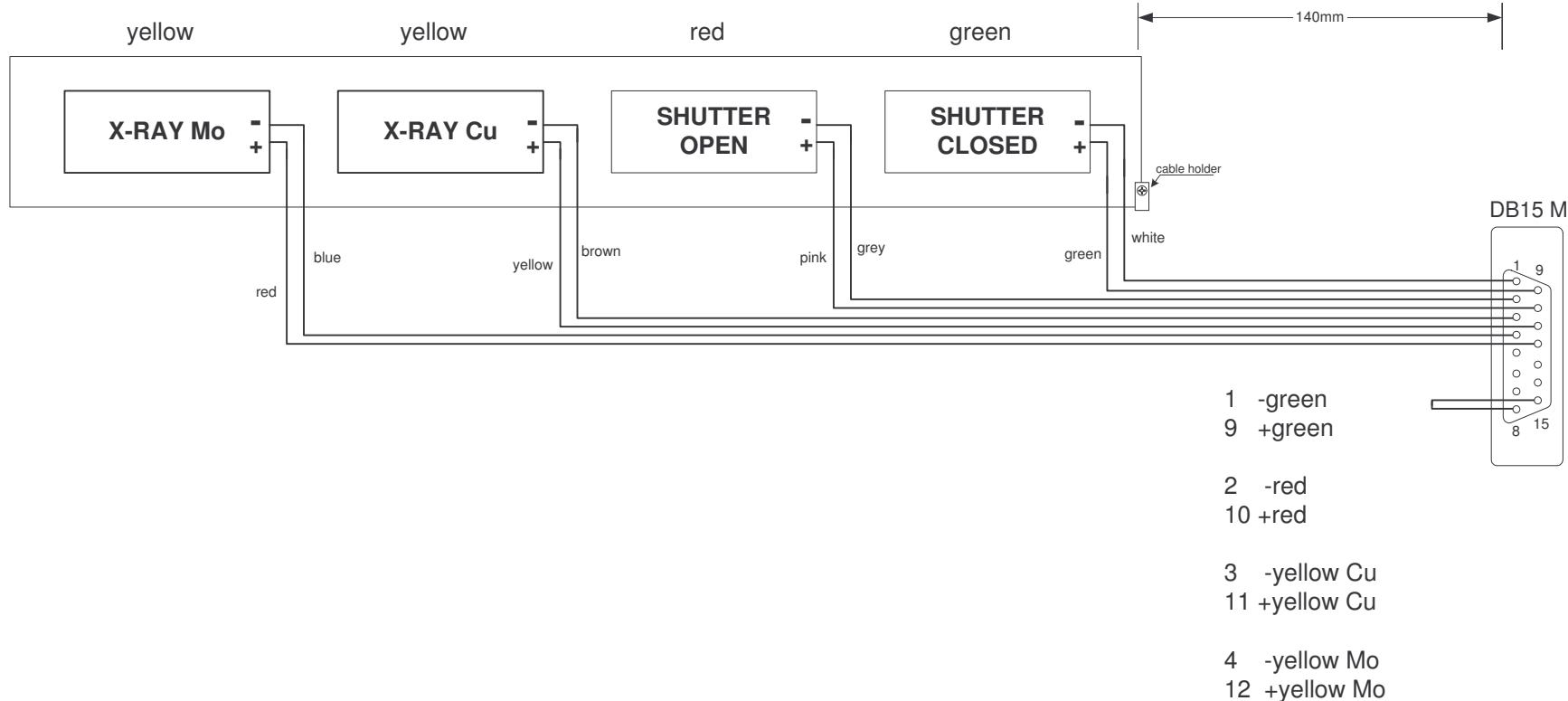
GEMINI PCB connections

FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation

REV.
A

DATE: 11.2004

SHEET 1 of 1



<i>A. No.</i>			
<i>Appr</i>			
<i>Date</i>			



DRG NO.

EG-01-00-005-A

DRAWN BY: R. S.

APPROVED BY:

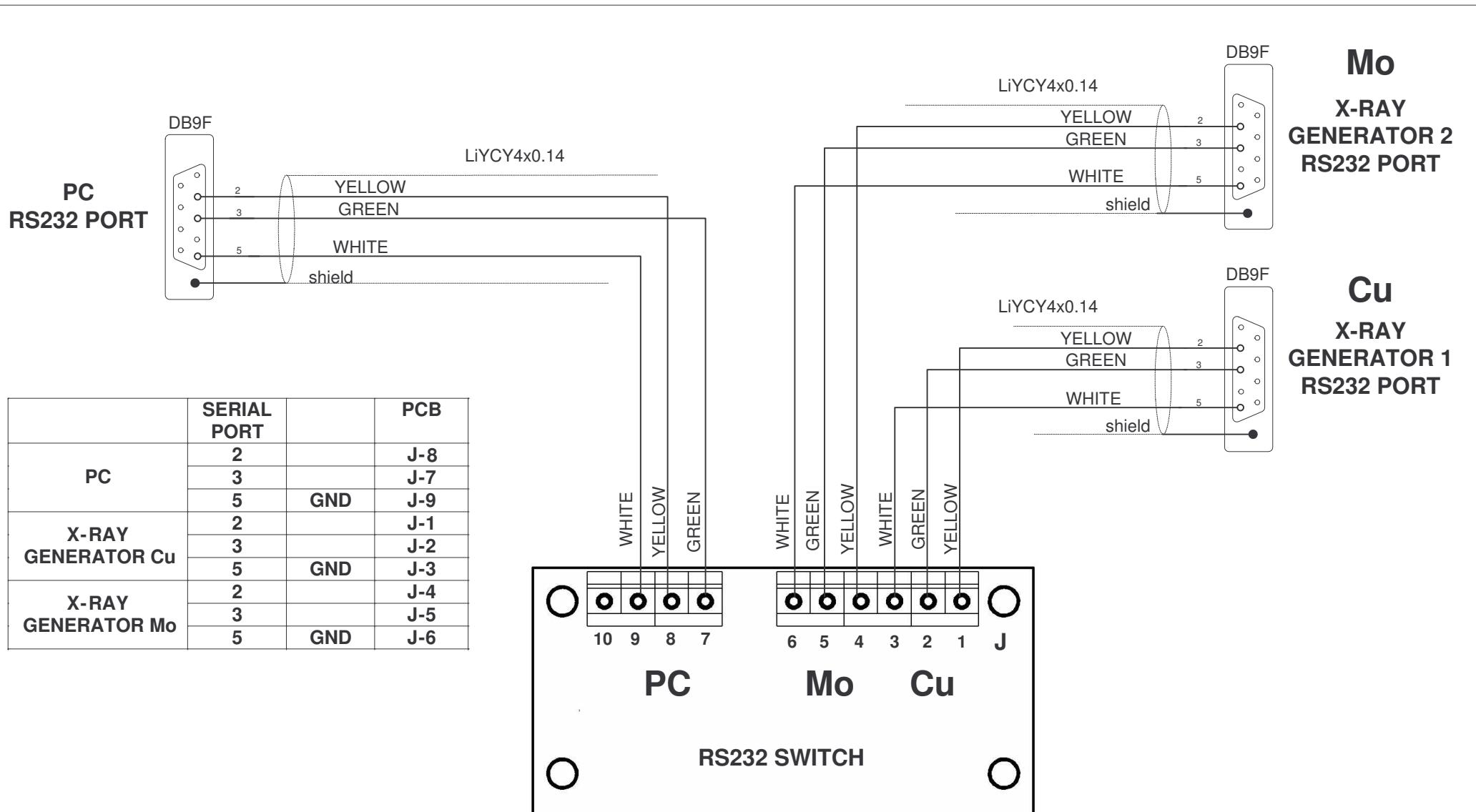
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GEMINI

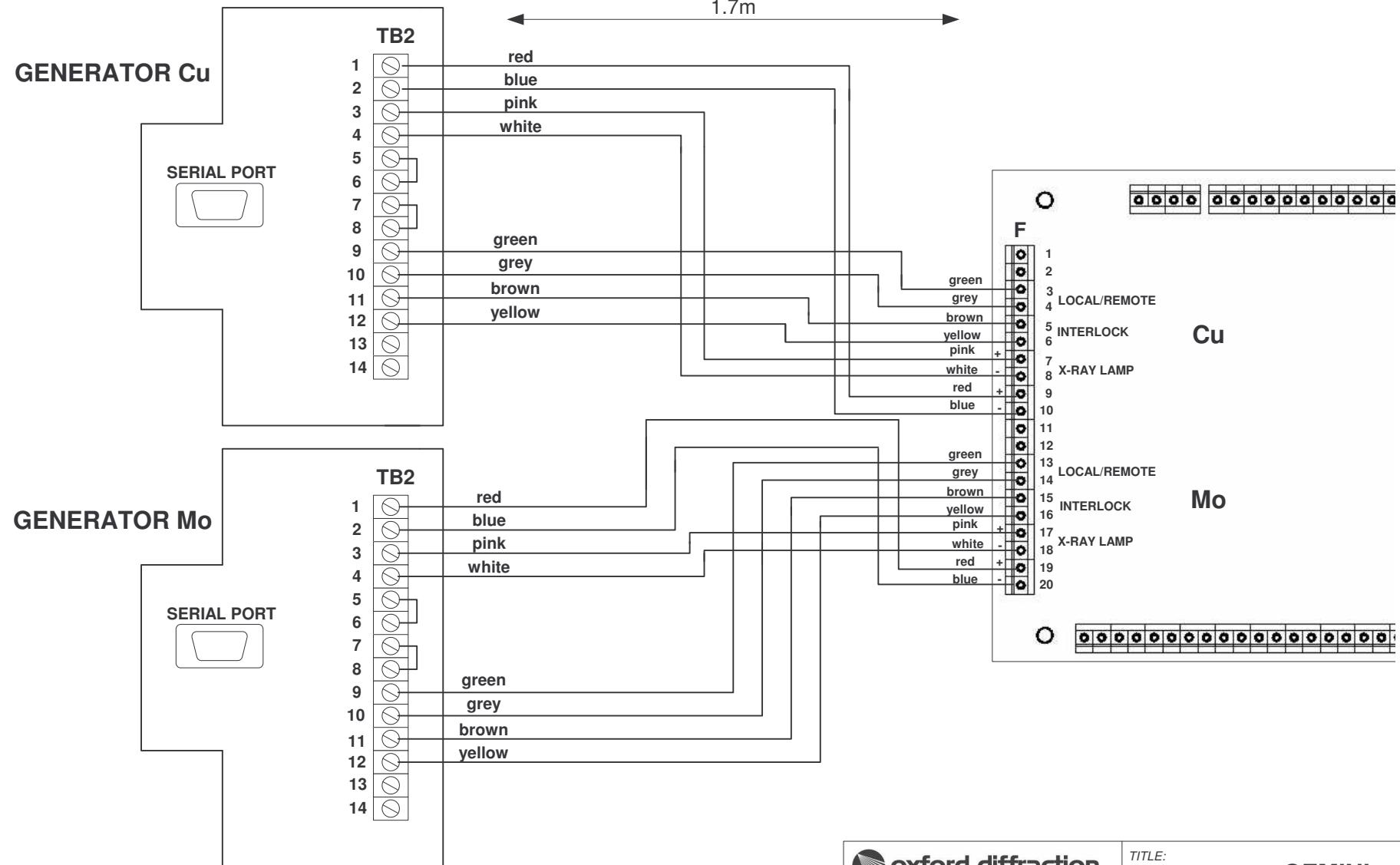
Warning lamps

FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\

REV.

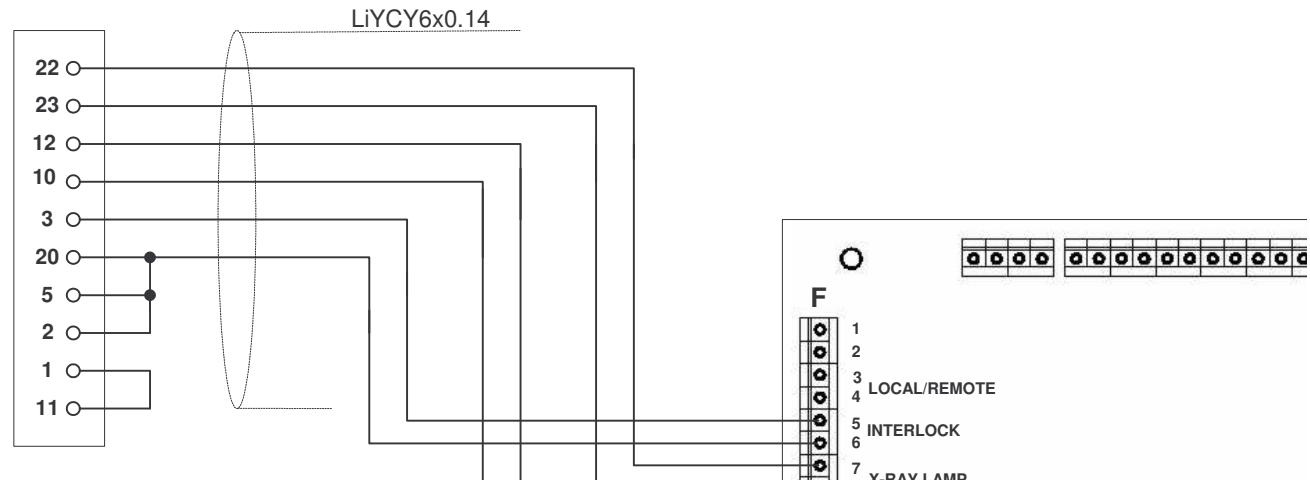


A. No.						oxford diffraction DRG NO. EG-01-00-006-A DRAWN BY: R. S. APPROVED BY: DATE: 11.2004 SHEET 1 of 1		TITLE: GEMINI PCB connections
Appr								
Date								

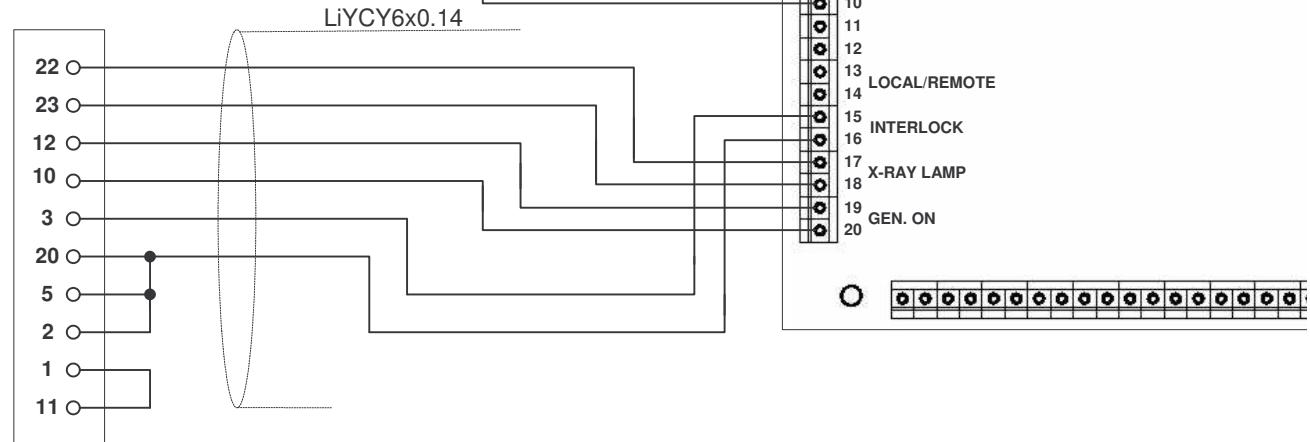


A. No.				
Appr				
Date				
 oxford diffraction DRG NO. EG-01-00-007-A DRAWN BY: R. S. APPROVED BY: FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation DATE: 11.2004 SHEET 1 of 1				

JB1
X-RAY GENERATOR Mo



JB1
X-RAY GENERATOR Cu



A. No.				
Appr				
Date				



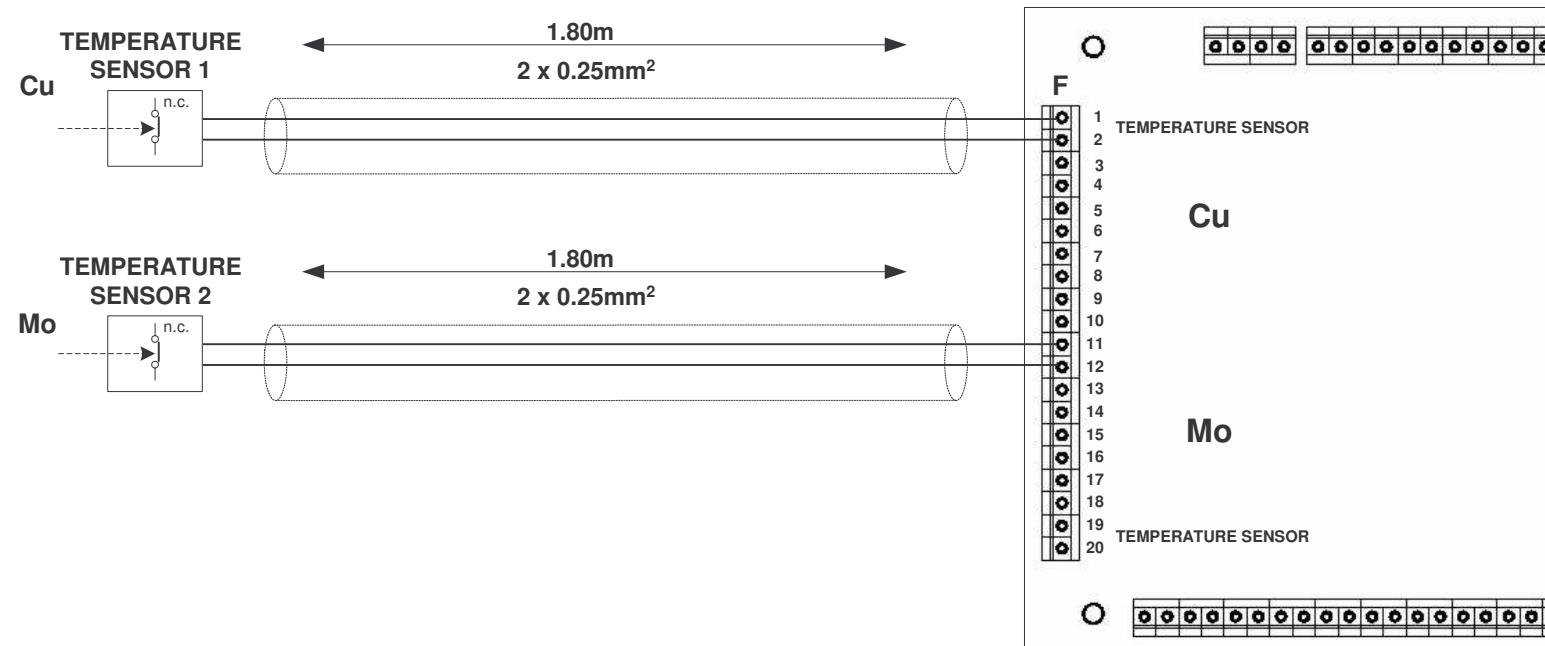
DRG NO.

EG-01-00-008-A

DRAWN BY: R. S.

APPROVED BY:

TITLE: GEMINI PCB connections	
FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	REV. A
DATE: 11.2004	SHEET 1 of 1



A. No.				
Appr				
Date				



DRG NO.

EG-01-00-009-A

DRAWN BY: R. S.

APPROVED BY:

TITLE:

GEMINI PCB connections

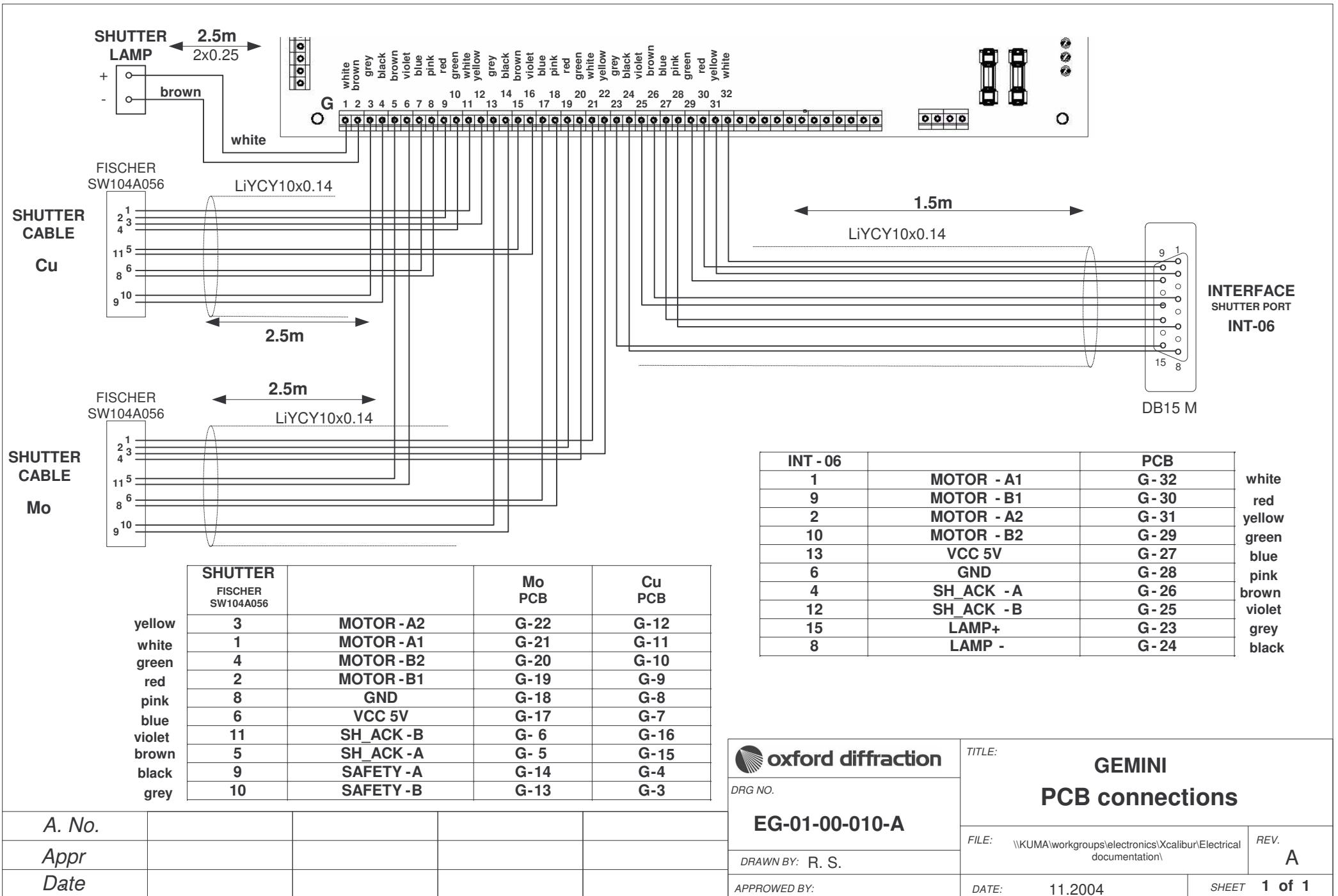
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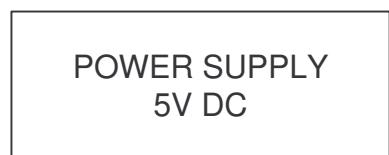
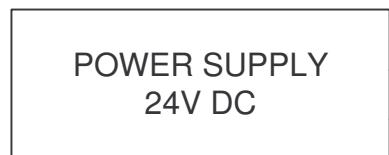
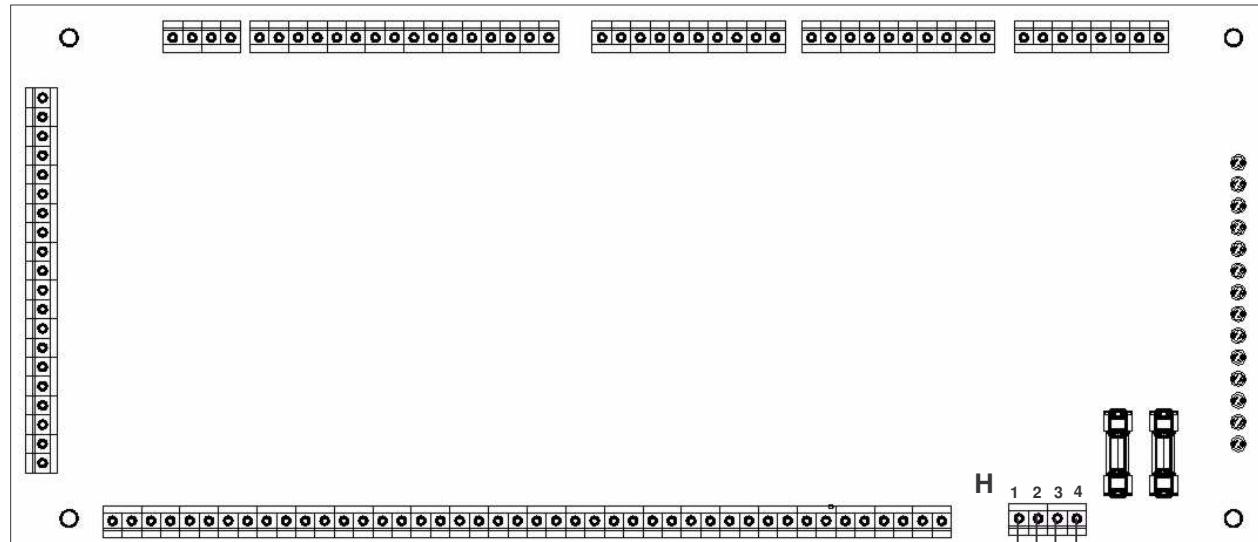
REV.

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DATE: 11.2004

SHEET 1 of 1





POWER SUPPLIES	PCB
+24V	H - 1
GND	H - 2
+5V	H - 3
GND	H - 4

A. No.				
Appr				
Date				



DRG NO.

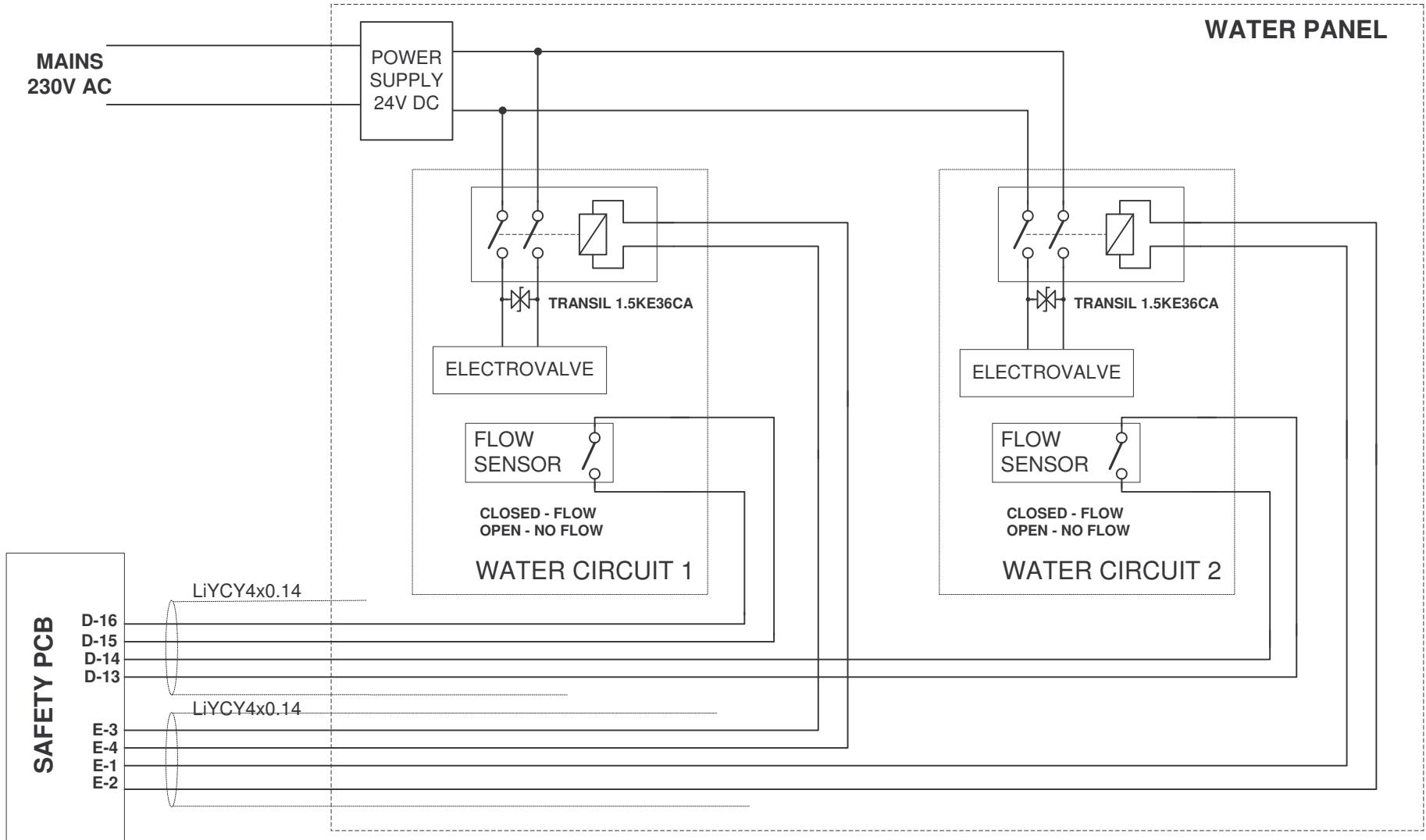
EG-01-00-011-A

DRAWN BY: R. S.

APPROVED BY:

TITLE:	
GEMINI	
PCB connections	
FILE: \\KUMA\workgroups\electronics\Xcalibur\Electrical documentation\	REV. A

DATE: 11.2004 SHEET 1 of 1



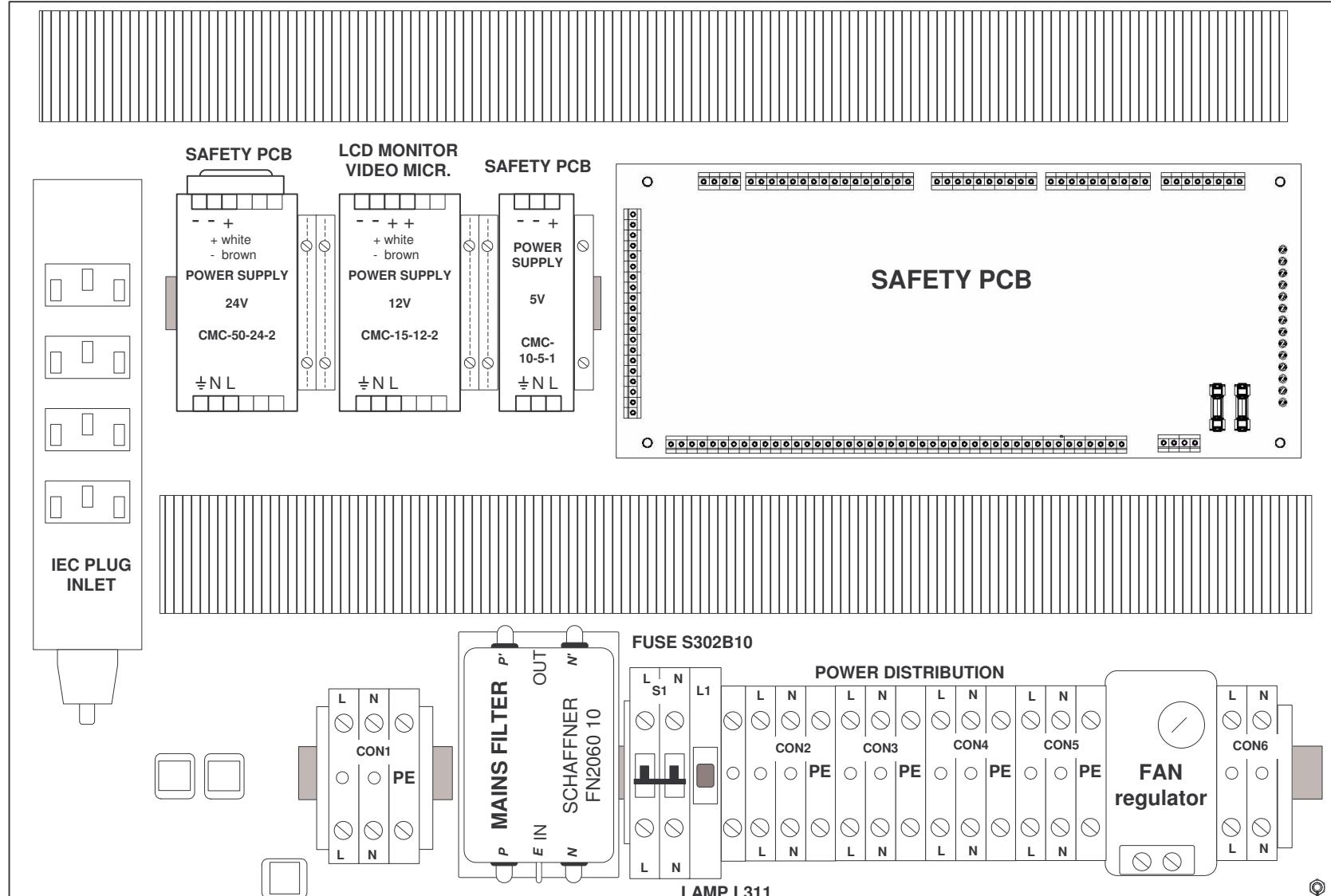
A. No.				
Appr				
Date				

oxford diffraction
DRG NO.
EG-01-00-012-A
DRAWN BY: R. S.
APPROVED BY:

TITLE: **GEMINI**
Water panel

FILE: \\KUMA\\workgroups\\electronics\\Xcalibur\\Electrical documentation
REV. **B**

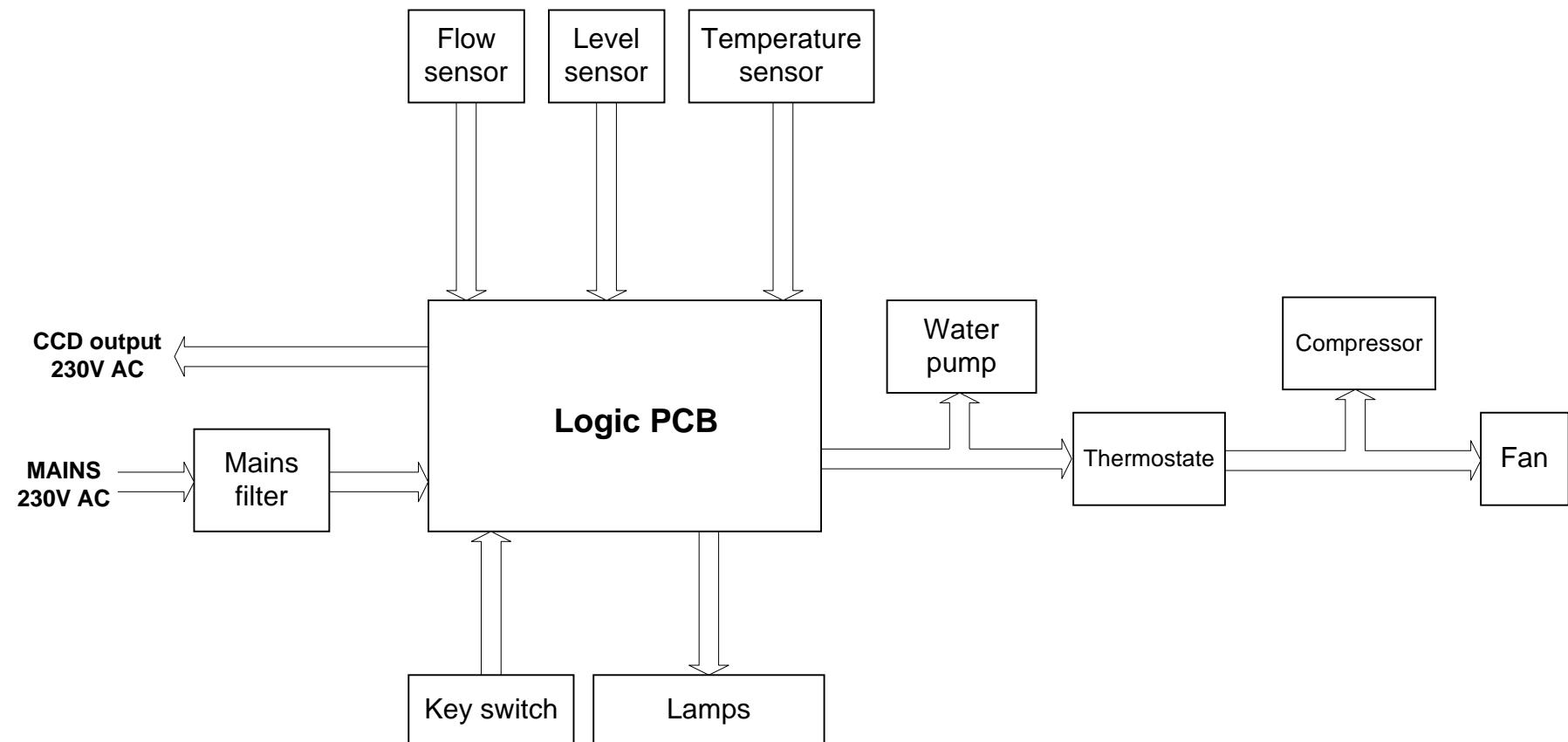
DATE: 11.2004 SHEET **1 of 1**



A. No.				
Appr				
Date				

oxford diffraction
DRG NO. **EG-01-00-013-A**
DRAWN BY: R. S.
APPROVED BY:

TITLE: **GEMINI**
Electrical panel
FILE: \\KUMA\\workgroups\\electronics\\Xcalibur\\Electrical documentation\\ REV. **A**
DATE: 11.2004 SHEET **1 of 1**



DRG NO.

EW-02-00-001-A

DRAWN BY: R. S.

APPROVED BY:

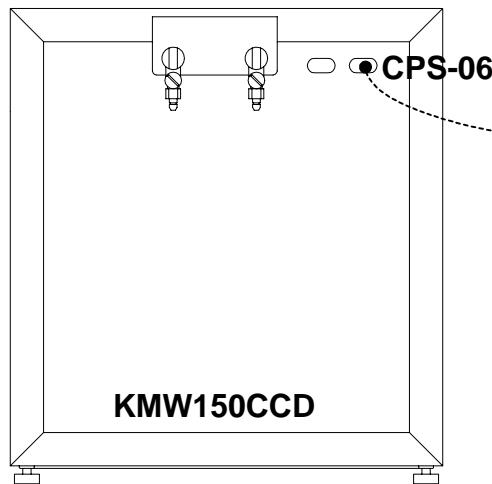
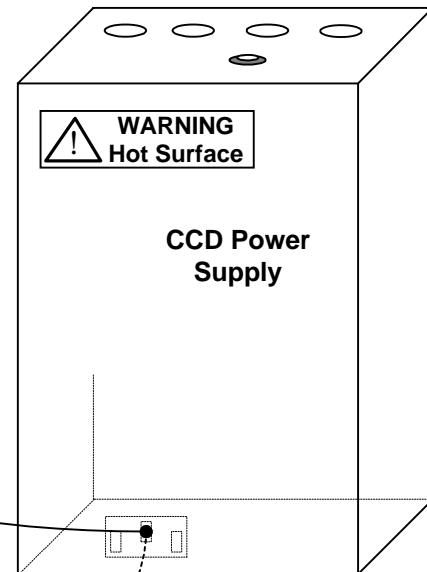
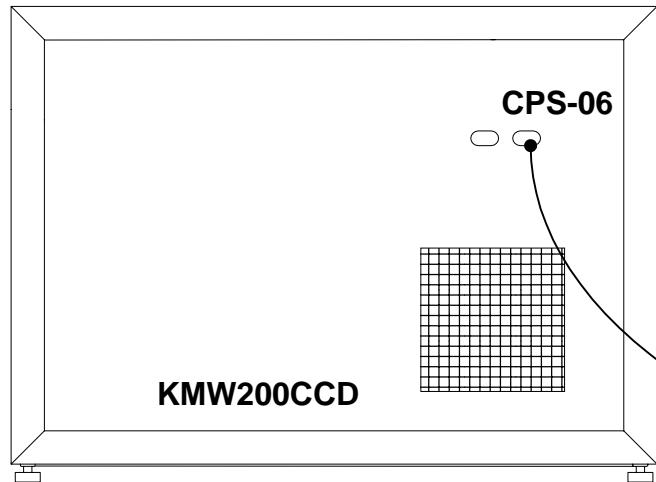
**KMW150CCD / KMW200CCD
Electrical block scheme**

FILE: \\KUMA\\workgroups\\electronics\\
KMW150CCD\\

REV. A

A. No.				
Appr				
Date				

DATE: 10.2002 SHEET 1 of 1



EC-01-02-001-A

<i>KPNS code:</i> EC-01-02-001-A	<i>Length:</i> 5.0m	<i>Drg no.:</i> EC-01-02-001-A
<i>Description:</i> CCD supply		
<i>Cable:</i> 3 x 1.5mm ² , white	<i>Connector 1:</i> CPS-06	<i>Connector 2:</i> CPS-05
<i>PNS code:</i> EA-05-00-016-A	<i>PNS code:</i> EA-06-00-014-A	<i>PNS code:</i> EA-06-00-015-A
<i>Type:</i> OWY3x1.5mm ²	<i>Type:</i> T65 male	<i>Type:</i> T65 female
	<i>Location:</i> KMW150CCD	<i>Location:</i> CCD p. s.

A. No.				
Appr				
Date				



DRG NO.

EC-01-02-001-A

DRAWN BY: R. S.

APPROVED BY:

TITLE:

CCD Power Supply 230VAC Supply cable

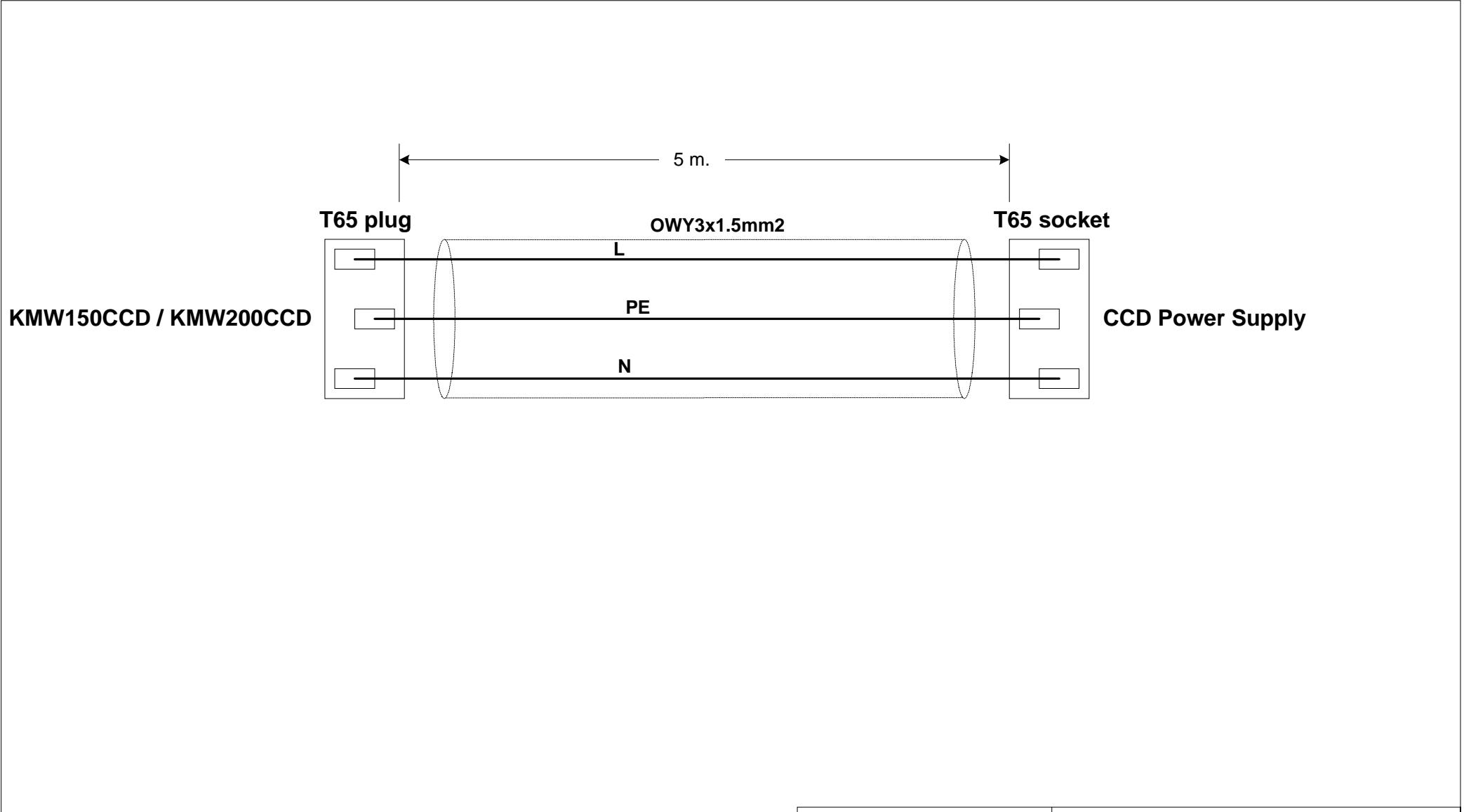
FILE: \\KUMA\\workgroups\\electronics\\gonio68332\\cables

REV.

A

DATE: 03/01/2002

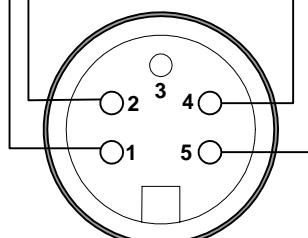
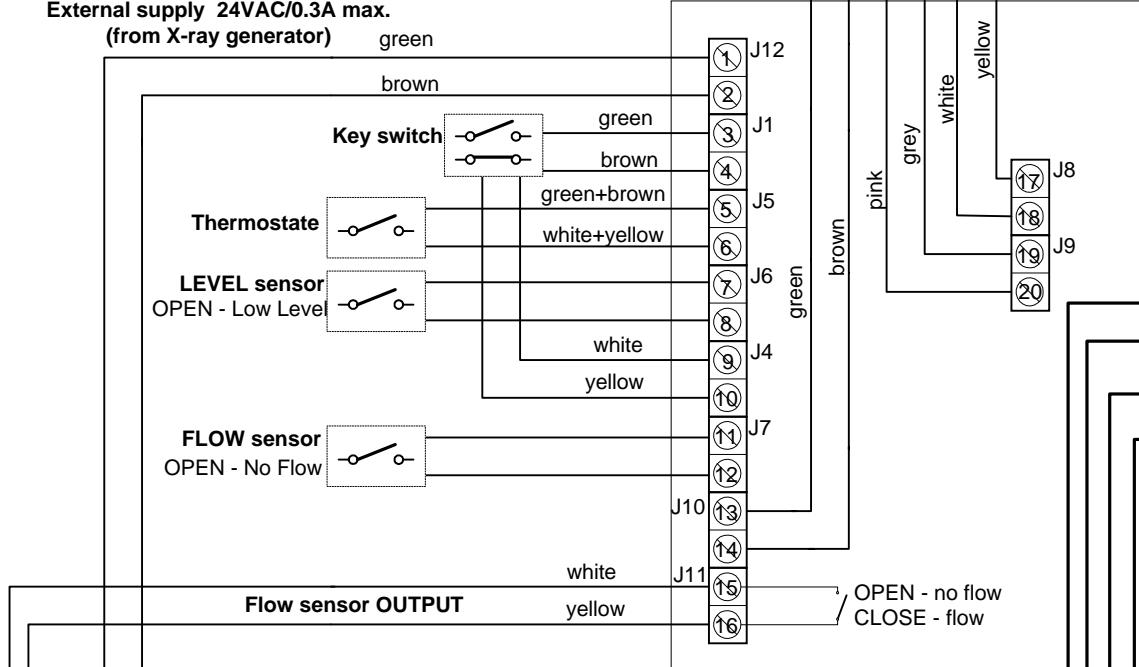
SHEET 1 of 2



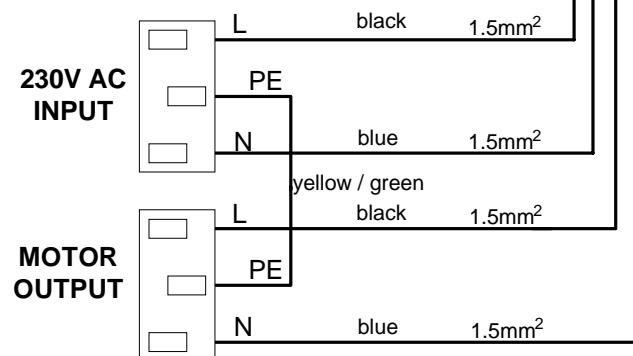
A. No.					 oxford diffraction	TITLE:	CCD Power Supply
Appr					DRG NO.		230VAC Supply cable
Date					EC-01-02-001-A	FILE:	\KUMA\workgroups\electronics\gonio68332\cables
					DRAWN BY: R. S.		REV. A
					APPROVED BY:	DATE: 03/01/2001	SHEET 2 of 2

READY Lamp - MultiLED 24VDC/12,5mA GREEN
 FLOW Lamp - MultiLED 24VDC/12,5mA YELLOW
 LEVEL Lamp - MultiLED 24VDC/12,5mA RED

External supply 24VAC/0.3A max.
 (from X-ray generator) green



T3363000 connector (front view)



oxford diffraction

DRG NO.

EW-03-02-001-A

DRAWN BY: R. S.

APPROVED BY:

TITLE:

KMW3000C Electrical connection scheme

FILE: \electronics\KMW3000C\ REV. A

DATE: 7/02/2002

SHEET 1 of 1

SW1 SETTINGS:
 a) External supply 24VAC:

- 1 - ON
- 2 - ON
- 3 - OFF
- 4 - OFF

b) Internal supply (with TR1):

- 1 - OFF
- 2 - OFF
- 3 - ON
- 4 - ON

T315mA/250V

T6,3A/250V

